

VERMONT AGENCY OF TRANSPORTATION

Operation Division

Federal Highway ER Manual

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TABLE OF CONTENTS

VTrans Contact Information.....	1
National Environmental Policy Act (NEPA).....	10
Right of Way Clearance.....	22
Construction Contracting Methodology.....	28
Davis-Bacon Act.....	42
Buy America Requirements.....	43
Retention of Records/Audit Requirements.....	44
Federal Contracting Requirements.....	45
VTrans FHWA Procedures.....	46
Grant Application.....	47
Detailed Damage Inspection Report.....	49
FHWA ER Submittal Checklist.....	50
TA-65ER.....	51
Major Collectors List.....	52
Federal Aid Urban List.....	60
Appendix A (Federal Aid Maps).....	77

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VTTrans strongly urges you to become familiar with the Federal Highway Administration's (FHWA) Emergency Relief (ER) Manual. It is in your best interest to fully understand all the requirements associated with the ER Program. Your town may have a lot of experience with the FEMA Public Assistance Program, but the two programs have different rules and requirements. To assist you with moving forward, we have highlighted some of the most important requirements that you will be expected to certify have been complied with prior to receiving reimbursement of federal ER funds. As highlighted in the attached letter, it is important to recognize what types of repairs are being completed – emergency or permanent.

Consultant Procurement:

Costs associated with hiring professionals to assist you with design, including preparation of a “Plans, Specifications and Estimate” package required before federal construction funds can be authorized for

permanent repairs, environmental permitting, a National Environmental Policy Act (NEPA) document for permanent repairs and construction inspection are eligible for reimbursement under the ER Program **IF proper contracting procedures have been followed**. Sole sourcing – or contacting one specific consultant – is not allowable when using federal funds. See Attachment A for more information on what is required when procuring consultant services. You will need to prepare a summary of the process followed for any procurement of consultant services for your files, including any pertinent documents such as the Request for Proposal or Scope of Work used in the solicitation, understanding that you may be required to produce such documentation if requested.

We strongly urge you to consider using consultants that are familiar with federal aid requirements for developing transportation projects. We also strongly urge you to require that your consultants prepare the project plans with the understanding that it will be advertised for construction using VTTrans' Standard Specifications for Construction. There are advantages to this - most specifically that VTTrans can provide you with assistance related to the construction phase – please see more detail below in the construction contracting methodology section. Finally, for your protection, we strongly suggest that you require your consultant to certify that “the noted projects plans, calculations and notes have been reviewed by our personnel and are substantially free from errors and omissions and are in conformance with the appropriate standards and specifications”.

Selection of a Design Consultant

Selection of a design consultant must be done through a competitive procurement process as detailed below. We recommend that all perspective design consultants must be on the VTrans qualified list, or found eligible for addition to this list by the VTrans Contract Administration Section, to be considered as a qualified source. We also recommend that any specialized services that might be needed for environmental assessment be included in the scope of work. A municipal selection committee will need to be formed. Supporting documentation of this process is the responsibility of the municipality.

Procurement Procedures for Non-Construction Services

The following summarizes what municipalities must do to meet federal regulations regarding non-construction procurement procedures. This summary is meant as guidance and does not replace what is contained in the Code of Federal Regulations (CFR), specifically 49 CFR 18 and 23 CFR 172 as well as US Code: Title 40, Chapter 11, commonly called the Brooks Act.

Responsibility for procuring these services rests with the municipality. Municipalities should be prepared to provide detail and documentation of procurement decisions to VTrans.

The type of procurement process is dependent on the services being sought. The Brooks Act requires that a qualifications based process be followed for architectural and engineering services. This type of procurement is referred to as QBS or Qualifications Based Selection. What constitutes architectural and engineering services is further defined or clarified in federal regulations as being one of the following: program management, construction management, feasibility studies, preliminary engineering, design, engineering, surveying, mapping, or architectural related services with respect to a construction project. QBS must be used for any contract in excess of \$100,000 per federal regulations. This amount pertains to the total contract amount at the end of the contract, including any amendments to the contract that might occur. Anticipating the possibility of contract amendments, it is recommended that the municipality will use a QBS process for architectural and engineering services as defined above if it is estimated that the initial contract amount will be \$65,000 or greater. For non-architectural and engineering services, a small purchase procedure or simplified acquisition process will be used. For architectural and engineering services with an estimate of less than \$65,000, the municipality may choose to use either a QBS process or a small purchase / simplified acquisition process. Details on these processes are detailed below.

QBS for Architectural and Engineering Process

The municipality shall solicit services via a Request for Qualifications (RFQ). A Scope of Services will need to be developed and a cost estimate shall be prepared for municipal use only. The RFQ solicitation shall clearly state what the basis of selection will be. Awards are made through negotiation with the most qualified firm that offers such services, assuming successful negotiations can be made. A selection committee will review and evaluate each statement of qualifications, based on the established criteria. Firms will then be ranked and either a short list of firms will be interviewed by the selection committee or the highest ranked firm will be selected. If interviews are to be held, firms will be scored for a final ranking. Negotiations with the highest ranked firm begin. If a scope and fee is not agreed upon within a reasonable time, negotiations with the top-ranked firm will be concluded and negotiations with the next highest ranked firm will be initiated. If a satisfactory contract is not worked out with this firm, then this procedure will continue until a mutually satisfactory contract is negotiated. Negotiations cannot resume with a firm after having been concluded at some point in the process.

Following is an outline of the QBS Process:

PLAN	<ul style="list-style-type: none">• Describe the project needs and goals• Identify the selection committee• Establish a selection schedule• Compile a list of firms for initial solicitation, if desired• Prepare an RFQ along with a SOW (and cost estimate for internal use)• Distribute the RFQ request **
SELECTION	<ul style="list-style-type: none">• Evaluate and rank RFQs• Inform firms of results. <p>NOTE: If a decision can be made based on RFQ, then proceed to NEGOTIATION.</p> <ul style="list-style-type: none">• Establish a short-list of firms to interview• Conduct interviews and rank firms• Inform short-listed firms of results
NEGOTIATION	<ul style="list-style-type: none">• Obtain scope, schedule and fee proposal from highest ranked firm• Discuss approach, schedule and resources with highest ranked firm• Negotiate terms, conditions and fee <p>NOTE: If a mutual agreement can't be made with firm, then end negotiations with firm and begin negotiations with the next highest ranked firm.</p>

****** In order to ensure competition, it is suggested that municipalities advertise in a larger, area wide newspaper such as the Burlington Free Press in addition to any local newspaper and also include your solicitation on the Vermont Business Assistance Network (VBAN). In addition, the municipality may compile an initial short list of firms to whom solicitations are sent.

Process for Non-Architectural and Engineering Services

(This process may also be used for architectural/ engineering services if the contract amount is expected to be less than \$65,000)

Estimated Cost of Work	Type of Procurement Procedure
Under \$1,000	Document Choice
\$1,000 to \$15,000	Small Purchase
\$15,000 to \$100,000	Simplified Acquisition
Over \$100,000	Formal Acquisition

• **Document Choice** – The municipality shall document why a particular source was chosen as well as the amount of the services.

- **Small Purchase Procurement** – The municipality must solicit price quotations and/or proposals from three or more sources that customarily offer the services. Choice of service providers should not be based solely on cost. Follow-up documentation of this process must be provided to VTrans, to include: a description of the qualifications sought in the solicitation and why the chosen source meets their needs. Also provided should be a description of the prices charged by the sources and an explanation as to why such charges are both cost effective and reasonable.
- **Simplified Acquisition Procurement** – The municipality shall solicit services by requests for proposals. A scope of services and cost estimate shall be prepared for municipality use only. Written proposals from three or more sources that customarily offer these services shall be sought via a request for proposal. It shall be clearly stated to all sources what the basis of selection will be. Awards are generally made based on technical merit and responsiveness to the scope of services. The comparative costs of the proposals may be considered but should not be the main basis of selection. Follow-up documentation must be provided to the Agency in support of the process and the chosen source.
- **Formal Acquisition Procurement** – This process is similar to the simplified acquisition process but a broader range of applicants must be sought. In order to accomplish this, it is suggested that municipalities advertise in a larger, area wide newspaper such as the

Burlington Free Press and include your solicitation on the Vermont Business Assistance Network (VBAN).

Requests for Qualifications and Proposals and Selection Process

Requests for Qualifications (RFQ) and Requests for Proposals (RFP) are the documents conveying the solicitation of personal services and generally include the requirements for submission, a brief description of the organization, the expected method of payment, any expectations relative to report/proposal format, specific clauses such as civil rights requirements and the consultant evaluation factors. An example of a RFQ / RFP and SOW can be found in Appendix C. Common evaluation factors include:

- Demonstrated understanding of the scope of the project.
- Knowledge of the project area.
- Adequacy of assigned resources.
- Proposed management team.
- Overall firm experience.
- Qualifications and experience of proposed staff.
- Past performance on similar projects.
- Reasonableness of proposed schedule.
- Reasonableness of proposed labor hour estimate (This factor cannot be used in a QBS solicitation).

A municipal contact should be identified in the RFQ / RFP and will be the person to answer all questions and receive all proposals. Other than routine questions, all questions must be answered in writing and distributed to all potential proposers. This is to ensure that all proposers have received the same information. As with all the procurement procedures, it is expected that documentation will be made for the project files.

Scope of Work (SOW)

A Scope of Work (SOW) gives the purpose and description of the project. It shall contain a detailed description of the work to be performed, references to all applicable standards, specifications and policies, reporting requirements and expected deliverables. The document prepared must be definitive enough to ensure that the proposing entity clearly understands their obligations while ensuring the municipality will achieve its contracting objectives. We recommend that you include Design Consultant Contract

Provisions (following) to the appropriate RFQ / RFP and SOW and include these as part of the executed contract with a consulting firm.

Proposal Evaluation and Selection

A selection committee is formed, to include at least two (2) municipal representatives. A municipal contact is identified in the RFQ / RFP and will be the person to answer all questions and receive all proposals. Other than routine questions, all questions must be answered in writing and distributed to all potential proposers. This is to ensure that all proposers have received the same information. The RFQ / RFP is then issued, as outlined above, with a specific deadline (date, time & place) when the proposals are due. Late proposals cannot be considered.

Once the proposal deadline has passed, copies of the Technical Proposals will be sent to the selection committee members for them to evaluate. For the non-QBS process, if Cost Proposals were sought, they shall be held unopened by the receiver until the committee meets to discuss the evaluations. In this instance, the Cost Proposals may be opened and examined once the Technical Proposal rankings are discussed. If after evaluation of proposals, there are questions on one or more of the proposals, it may be advantageous to hold interviews with consultants to clarify issues.

The selection committee selects a consultant after weighing all information. In some cases the governing board of the community (i.e.: Selectboard, City Council) will need to concur with the recommendation of the selection committee. The municipality then prepares a documentation letter for project files. Municipality also prepares letters informing all proposers of the selection.

Grievance Procedures for Design Engineer Solicitations

If the award of the contract aggrieves any firms, they may appeal in writing to the project sponsor and the appeal must be post-marked within fourteen (14) calendar days following the date of written notice to award the contract. The final decision is to be made by the project sponsor. Language to this effect shall be included in the RFP / RFQ.

*National Environmental Policy Act
(NEPA):*

Emergency repairs undertaken within the first 180 days of the disaster are covered for review under NEPA on a statewide basis.

All permanent repairs and emergency repairs completed after 180 days of the disaster require an individual assessment under NEPA, most likely resulting in a Categorical Exclusion (CE) as opposed to an Environmental Assessment (EA) or Environmental Impact Statement (EIS). See Attachment B for the most recent version of the Categorical Exclusion Environmental Analysis Sheet which will need to be filled out by your community, with assistance from qualified professionals, and returned to us for processing with FHWA.

If you will be performing permanent repairs, a filled-out Categorical Exclusion Environmental Analysis Sheet should be submitted as soon as possible after the town has clearly defined what the scope of the project will be and once it is known what the general footprint of the project will be. Any back up from qualified professionals assisting you in this effort should be included as well.

**Categorical Exclusion
Environmental Analysis Sheet**

Town _____ **Project No.** _____ **Route** _____

Project Setting: Urban _____ Village _____ Rural _____

Traffic _____ Year _____ Typical _____

AASHTO Functional Classification _____

Project Purpose & Need:

The purpose of the project is _____

The need for the project is due to _____

Project Description:

The project will involve _____

CRITERIA OF 23 CFR771.117 (C) APPLICABLE? _____ **YES** _____ **NO**

NOTE: PROJECTS THAT MEET THE CRITERIA OF 23 CFR771.17 (C) NEED ONLY ADDRESS THOSE ISSUES MARKED WITH AN ASTERISK (*). THIS DOES NOT PRECLUDE THE NEED TO OBTAIN APPLICABLE STATE & FEDERAL CONCURRENCES & PERMITS.

1. Air Quality

Ten year increase in ADT _____ (10,000 allowed maximum per MOA)

Urban intersection improvement Yes _____ No _____

2. Noise

Type I Project (VTrans Noise Policy) Yes _____ No _____

If yes, number of receptors impacted _____

Mitigation Requirements _____

3. **Water Quality**

Lakes or Ponds

VANR Lakes & Ponds permit Yes ___ No ___ Acquired _____

Rivers or Streams

VANR Title 19 Consultation Yes ___ No ___ Completed _____

Wetlands

* Wetland Impact area Temporary _____ Permanent _____

* Buffer Impact area Temporary _____ Permanent _____

* VANR Wetland Permit Yes _____ No _____ Acquired _____

401 Water Quality Certification Yes _____ No _____ Acquired _____

Stormwater Discharge Permit Yes _____ No _____ Acquired _____

Flood plains Encroachment Yes _____ No _____ Volume _____

Describe Hydraulic Changes _____

Ground Water/Surface Water/Well Impacts Yes _____ No _____

(Describe) _____

ANR Comments _____

4. **U.S. Army Corps of Engineers**

Section 10 and/or Section 404 Permit Required Yes ___ No ___ Acquired _____

Permit Type _____

COE Comments _____

5. **U.S. Coast Guard**

Navigable Waters Yes _____ No _____ Involved Waterway _____

Rivers & Harbors Act Section 9 and/or

Bridge Act of 1946 Permit(s) Required Yes _____ No _____ Acquired _____
Section 144(h) "Exemption" Yes _____ No _____ Acquired _____
USCG Comments _____

* 6. **Threatened and Endangered Species and Habitat**

Present in Project Area Yes _____ No _____
ANR Non-Game and Natural Heritage Program comments _____
USF&WS comments _____

7. **Agricultural Land**

Prime/secondary/locally important soils affected Yes _____ No _____
Current land use _____
Form 1006 Parts 1, III, VI, VII, completed (FHWA) Yes _____ No _____
Form 1006 Parts II, IV, V completed (NRCS) Yes _____ No _____
Vermont Department of Agriculture comments _____

8. **Hazardous/Residual Waste Liabilities**

Present in project area Yes _____ No _____
Determination from VANR list Yes _____ No _____
Determination from field visit Yes _____ No _____
Borings completed Yes _____ No _____
Petroleum related wastes Yes _____ No _____
CERCLA involvement Yes _____ No _____
Remediation required Yes _____ No _____

Describe _____

*** 9. Historical or Archaeological Resources (Section 106)**

Historic Resources: Present in project area Yes _____ No _____

Archeological Resources: Present in project area Yes _____ No _____

Section 106 determination _____

Memorandum of Agreement needed Yes ____ No _____ Executed _____

SHPO coordination completed _____

Advisory Council coordination completed _____

*** 10. Section 4(f) and 6(f) Resources**

Section 4(f) Resource(s) present in project area Yes _____ No _____

Nature of Section 4(f)

Parks/Rec. Areas ____ Wildlife and Waterfowl Refuge ____ Historic Property ____

Temporary use of 4(f) resource Yes _____ No _____

Permanent use of 4(f) resource Yes _____ No _____

Section 4(f) Approval (check one)

Negative Declaration ____ de minimis 4(f) ____ Programmatic 4(f) ____ Circulated 4(f)

Section 4(f) Comments _____

Section 6(f) involvement (LWCF Funding) Yes _____ No _____

National Park Service Conversion Approval _____

Section 6(f) Comments _____

*** 11. Right of Way**

New ROW Acquisition fee simple Yes _____ No _____

permanent easement Yes _____ No _____

temporary easement Yes _____ No _____

Description of taking _____

Improved properties acquired Yes _____ No _____

Displacements Rental Units _____ Private Homes _____ Businesses _____

Relocation services to be provided _____

Properties available for relocation _____

12. **Public Participation Opportunity**

Pre-Design Site Meeting Yes _____ No _____ Date _____

Public Information Meeting Yes _____ No _____ Date _____

Public Hearing Required (502) Yes _____ No _____ Date _____

Comments by Local Officials/RPC's _____

13. **Social and Economic Concerns**

Project consistent with Local and Regional Land Use Plans Yes ____ No _____

Describe _____ (Attach correspondence from officials)

Neighborhood and Community Concerns Yes _____ No _____

_____ Churches

_____ Elderly

_____ Schools

_____ Handicapped

_____ Low Income Housing

_____ Environmental Justice Exec. Order 12898

_____ Emergency Services

_____ Other

Describe _____

Effect on local business Yes _____ No _____ (Describe) _____

Temp. effect on business Yes _____ No _____ (Describe) _____

Loss of parking Yes _____ No _____ (Describe) _____

Pedestrian Facilities Sidewalk Widths Existing _____ Proposed _____

Bicycle Facilities Paved Shoulder Widths Existing _____ Proposed _____

If not minimum standard (sidewalk 5ft, paved shoulder 4ft), explain _____

14. **Aesthetic Concerns**

Scenic Byway/VT Scenic Highway Yes _____ No _____

Describe _____

15. **Effects of Temporary Detour/ Bridge**

Detour required Yes _____ No _____ Length _____ (Attach Plans)

Temporary bridge required Yes _____ No _____ (Attach Plans)

Impacts of Detour/ Bridge _____

Public notification of detour _____

Field Inspection Comments: _____

Prepared by: _____ Reviewed by: _____

Signature

Date

Signature

Date

Summary of Commitments and Mitigation

Describe _____

Federal Environmental Laws and Regulations

The Vermont Agency of Transportation (VTrans) is required to comply with the following Federal Laws and Regulations for all activities involving Federal Funds or requiring permits from Federal Agencies, including participation in Town Transportation projects. Many of these are referenced in the CE Environmental Analysis Sheet immediately preceding.

Section 106 of the National Historic Preservation Act of 1966

Protects historic and archaeological resources. Potential resources include; Houses, bridge, historic districts, and historic & prehistoric sites.

- A. Requires Federal Agencies to determine the effect of projects, which they fund or permit, on historic resources.
 - 1. The Advisory Council on Historic Preservation (ACHP) is responsible for reviewing the effects of projects on historic and archaeological properties.
 - 2. The Army Corps of Engineers (COE) requires historic and archaeological resource coordination on projects involving wetlands and waters of the US.
 - 3. VTrans coordinates with the VT State Historic Preservation Office (SHPO) to address the Section 106 process during project planning and construction.

Section 4(f) of the Dept. of Transportation Act of 1966

- A. Protects lands described under Section 4(f) from transportation project impacts. Potential 4(f) lands include: public parks, recreation areas, historic houses structures and districts on or eligible for the National Register, etc.
- B. Prohibits the Department of Transportation (DOT), Federal Highway Administration (FHWA), from approving a transportation project which requires the “use” of 4(f) land of National, State, or Local significance unless it is Determined that:
 - 1. there is no feasible and prudent alternative to the use of such land, and
 - 2. the project includes all possible planning to minimize harm to such land resulting from such use
- C. Definition - a “use” occurs:
 - 1. when land from a Section 4(f) site is acquired for a project, or
 - 2. when occupancy of the 4(f) land is adverse in terms of the statute’s preservation purposes, or
 - 3. when proximity impacts of a project are so great that the purposes for which the site exists are “substantially impaired”.
- D. A “Determination of No Feasible and Prudent Alternative” must document “unique problems or unusual factors involved in the use of alternatives” or

that “the cost, environmental impact, or community disruption resulting from such alternatives reach extraordinary magnitude.” Unique Problems include adverse factors such as socioeconomic impacts, safety and geometric constraints, decreased traffic service, etc. and may be considered collectively to show that an alternative presents unique problems.

Section 6(f) of the Land & Water Conservation Act of 1965

- A. Preserves, develops, and assures the quality and quantity of outdoor recreation resources for present and future generations through purchase and improvement of recreational lands, wildlife and waterfowl refuges, and such resources, with Land and Water Conservation Funds (LWCF).
- B. Protects LWCF lands from conversion to “non-public” outdoors recreational uses.
- C. Allows conversions only on approval from the Secretary of the Interior.

The National Environmental Policy Act of 1969 (NEPA)

- A. Requires federal agencies to consider the environmental impacts of all projects involving federal funds.
- B. Requires public participation.
- C. Requires preparation of an Environmental Document describing all environmental considerations involved in the project.
 - 1. An Environmental Impact Statement (EIS) is required for projects having significant impacts. An Environmental Assessment (EA) is prepared for projects having limited impacts of uncertain significance. A Categorical Exclusion (CE) is prepared for projects that will not have significant impacts.
 - 2. Environmental considerations may include: air, noise & water quality; wetlands; water bodies; wildlife; floodplains; wild and scenic rivers; T&E species; historic & archaeological resources; hazardous wastes; land use; farmlands; use vs. productivity; commitment of resources; social impacts; relocation; economics; joint federal uses; pedestrian; bicycles; aesthetics and other items.

The Farmland Protection Policy Act of 1981

- A. Protects farmland and seeks to maximize compatibility with state and local farmland programs and policies.
- B. Requires early coordination with the USDA Soil Conservation Services (SCS), completion of a Farmland Conversion Impact Rating, and determination of whether or not to proceed with conversion based on the severity of impacts and other environmental considerations.

The Federal Clean Air Act

- A. Protects and seeks to improve the nation's air quality to promote public health and welfare.
- B. Requires conformance with State Implementation Plans (SIP) and Transportation Control Measures (TCM) in non-attainment areas. The State of Vermont is not presently a non-attainment area, and so is in conformance.

Executive Order 11988 "Floodplain Management"

- A. Addresses avoidance of adverse impacts associated with occupancy and modification of floodplains.
- B. Requires assessment of flood hazards.
- C. Requires a specific finding statement in the NEPA document.

Executive Order 11990 "Protection of Wetlands"

- A. Requires federal agencies to: "avoid to the extent possible...destruction or modification of wetlands"; "avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative"; "avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds that there is no practicable alternative to such construction and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use."
 - 1. If wetlands are impacted, a specific wetland finding based on Executive Order 11990 is required in the NEPA document.

The Wild & Scenic Rivers Act of 1982

- A. Protects and preserves rivers listed on the National Wild and Scenic Rivers System and their immediate environments.
 - 1. There are no Wild & Scenic Rivers currently listed for Vermont.

The Fish & Wildlife Coordination Act of 1958

- A. Provides for protection of fish and wildlife resources when federal actions, such as permitting, control or modify a natural stream or body of water.
- B. Requires consultation with the US Fish & Wildlife (USFW) to determine if there is a need for, and to develop, mitigation measures.

The Resource Conservation & Recovery Act of 1976 and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980

- A. Established guidelines concerning liabilities for hazardous wastes on projects involving federal participation.

- B. Requires avoidance or remediation measures if hazardous materials are involved.

Section 401 of the Clean Water Act of 1977

- A. Established procedures to protect water quality by regulating discharges.
- B. Requires applicants for Section 404 permits to obtain a certification or waiver from the state water pollution control agency (VTANR) to discharge dredged or fill materials.
 - 1. In Vermont, 401 Water Quality Certification (WQC) is contained in the SAP, CUD, or Lakes & Pond permit.

Section 404 of the Federal Water Pollution Control Act of 1972 as amended by the Clean Water Acts of 1977 & 1987

- A. Prevents water pollution by regulating discharges of dredged or fill material into waters of the US.
 - 1. Discharge includes placement of any permanent or temporary fill necessary for the construction of a structure.
 - 2. Waters of the US include: navigable waters (Lake Champlain, Lake Memphremagog); all tributaries to navigable waters of the US where the degradation or destruction of those waters could affect interstate or foreign commerce.
- B. Requires a permit for discharge of fill in waters of the US. The Permit program is administered by the US Army Corps of Engineers (COE).
 - 1. General permits are granted for activities involving minimal or insignificant environmental impacts.
 - 2. Nationwide permits are a series of permits granted for certain minor projects as defined in the Corps regulations.
 - 3. Individual permits are required for projects, which do not fall under the criteria for general or nationwide permits.
 - 4. All 404 permits require a Section 106 determination and a Section 401 Water Quality Certification.
- C. The COE bases the decision to issue a permit on evaluation of impacts identified during a Public Interest Review, and compliance with the 404(b)(1) guidelines.
 - 1. The Public Interest Review: Provides for evaluation of the probable impacts of a proposed project on public interest: Considers environmental, social, and economic concerns of the public: Includes comments of federal, state, and local agencies, as well as the general public.
 - 2. The EPA 404(b)(1) guidelines prohibit discharges: where less environmentally damaging, practicable alternatives exist: which result in violations of State or Federal Water Quality Standards, the Endangered Species Act, or the Marine Sanctuaries Act: which cause or contribute to significant degradation of waters and wetlands: where

appropriate and practical mitigation has not been taken; or if there is not sufficient information to determine compliance.

3. If the project is in compliance with 404(b)(1), and is not contrary to the public interest, the COE will grant a permit.

Title 23 USC as amended by the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA)

- A. Contains the Federal Regulations governing the operations of the National Highway Traffic Safety Administration and the Federal Highway Administration, divisions of the US Department of Transportation.
- B. Requires, and provides for, compliance with other Federal Regulations governing: land, water, air, natural, cultural, physical, and other resources of, or within, the United States.
- C. Established a National Highway System to focus federal resources on interstate and non-interstate highways of major regional importance.
- D. Requires State to establish continuing transportation planning processes and provides twenty minimum considerations to encourage intermodal efficiency and provide greater flexibility in use of federal funds for activities that enhance the environment, such as wetland banking, mitigation of impacts upon wildlife habitat, historic sites, bicycle and pedestrian projects, and highway beautification.

LIST OF FEDERAL PERMITS AND APPROVALS	
Agency	Permit or Approval
ACHP	Historic Preservation Act Section 106 – review
COE	Clean Water Act Section 401 – certification
COE	Water Pollution Control Act Section 404 – permit
DOI	Land & Water Conservation Act Section 6(f) – approval
EPA	National Environmental Policy Act – approval
FHWA	Dept. of Transportation Act Section 4(f) – determination
SCS	Farmland Protection Policy Act – determination
USFW	Fish & Wildlife Coordination Act – Coordination

Right of Way Clearance:

FHWA has the responsibility of ensuring that property owners affected by federally funded projects are afforded due process in acquisition with just compensation and that public monies are spent in a reasonable and accountable manner. This is codified in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended 49 CFR – Part 24 (Uniform Act). Responsibility for ensuring that the provisions of the Uniform Act are met rest with the municipality.

The municipality must issue a certified statement to VTrans that all Right-of-Way (ROW), including control of access rights, as well as legal and physical possession, has been acquired in accordance with the Uniform Act. This includes temporary rights that might be needed for the contractor to be physically able to complete the construction work. The ROW Certification Letter – see Pages 23-27- must be signed by the municipal attorney. If any special ROW agreements were made, they need to be included in a certification package as well as final ROW plans with changes noted, appraisals, fair market value certificate, mortgage releases, easements and acquisition documents. VTrans will then issue the final ROW certificate to the Federal Highway Administration.

This is one of the trickier areas of the project development process. If your town feels that any of the construction will be occurring outside of existing town highway ROW, please let me know so that we can get you more detailed information to assist you.

GRANT OF TEMPORARY RIGHTS

KNOW ALL TO WHOM THESE PRESENTS COME:

THAT _____,
of the Town of _____, in the in the County of _____
_____ and Town of _____, hereinafter referred to as
“Grantor”, owner of certain lands adjacent to certain public highways in the Town of _____,
said public highway commonly known as _____,
_____ , for and in consideration
of _____ and No/100 Dollars (\$_____)
and other good and valuable considerations, paid to my/our full satisfaction by the
State of Vermont, a sovereign state, acting by and through its Agency of
Transportation with its principal office in the City of Montpelier, located in the County
of Washington and State of Vermont, Grantee, by these presents, do freely GRANT
unto the said Grantee, the STATE OF VERMONT, and its successors and assigns
forever, certain temporary easement(s) over my/our land in the Town of _____,
County of _____,
and State of Vermont, which temporary easement (s) are described as follows, viz:

1. A temporary easement during the period of construction to enter upon land of the grantor(s), for construction purposes, including the right to cut and dispose of all trees, down timber, stubs, brush, bushes, and debris, install erosion control barriers and project demarcation fence, as necessary, and undertake general construction functions in an approximate area of _____ square feet, more or less.
2. A temporary easement during the period of construction to extend highway slopes and embankments in an approximate area(s) of _____ square feet, more or less.
3. A temporary easement during the period of construction to enter upon land of the grantor(s), to install an access, for ingress and egress by all means and methods of transportation, in an approximate area(s) of _____ square feet, more or less.
4. A temporary easement during the period of construction to enter upon land of the grantor(s), to install a detour, for use by the general public, by all means and methods of transportation, in an approximate area(s) of _____ square feet, more or less. This easement

shall be effective until _____, 20____,
upon which date this temporary easement shall terminate and be of no
further force and effect.

5. A temporary easement to _____

in an approximate area(s) of _____ square feet,
more or less.

Grantor(s) and the Town of _____ agree that this instrument
applies only to temporary easement(s) ### _____ as listed
above.

The Grantor herein does hereby waive, release and discharge the STATE OF
VERMONT from any damage or claim of damages of any kind or nature which
Grantor and Grantor’s heirs, successors, administrators and assigns may have, or claim
to have now or in the future, in connection with the above-mentioned work done or to
be done on Grantor’s land and premises. However it is not intended by this instrument
to exempt any party or contractor who may hereafter be designated to perform the
work described above from liability for damage to the Grantor’s property due to
negligence acts or omissions.

“The Grantor, having been fully informed of his/her/their right to receive
just compensation for the acquisition of his/her/their property, hereby
acknowledges, waives and releases the municipality from the Grantor’s right to
receive just compensation determined by an appraisal as well as the municipality’s
obligation (if applicable) to perform and provide an appraisal.”

TO HAVE AND TO HOLD said granted temporary easement, to the said
Grantee, the TOWN OF _____, and its successors and assigns,

to its and their own use and behoof forever; and _____,
for myself/ourselves and my/our heirs, successors, administrators and assigns, do
covenant with the said Grantee, the TOWN OF _____, its successors
and assigns, that until the ensealing of these presents the Grantor has sole possession
of the premises, and have good right and title to convey the temporary easement
described above.

IN WITNESS WHEREOF, the above-named Grantor(s) have caused their
name(s) to be subscribed, this _____ day of _____,
20_____.

GRANTOR(S)

STATE OF _____)

_____ COUNTY, ss)

At the Town of _____ in said county this _____
_____ day of

_____, 20_____, personally appeared

_____ and acknowledged the foregoing instrument by _____ executed
to be _____ free act and deed.

Before me,

Notary Public
(My commission expires on Feb. 10, 2015)

TO BE USED IF NO ACQUISITIONS ARE NEEDED

Project Name and Number: _____

This is to certify that the Town/ City of _____, or its assigns, have the right to enter on to all lands needed for completion of the subject project and that no acquisitions of any kind were needed.

Dated at Town of _____, this day of _____, 20 _____

TOWN OF _____

By: _____

Its: _____

TO BE USED IF ANY ROW ACQUISITIONS, INCLUDING TEMPORARY EASEMENTS, WERE NEEDED:

Project Name and Number: _____

This is to certify that:

1. As shown on Project Plans filed in the Town Clerk's office on _____ all necessary rights-of-way have been acquired including legal and physical possession, the Town of _____, or its assigns, have the right to enter on all lands and the right-of-way is clear.
2. All acquisition was in accordance with current Federal Highway Administration Directives and Title III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.
- 3.
4. No Acquisition required compliance with the provisions of Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

Following is a summary of the Project acquisitions:

Parcel Number	<u>Owner(s)</u>	Effective Date	Acquisition Type
---------------	-----------------	----------------	------------------

Dated at Town of _____, this day of _____, 20 _____

TOWN OF _____

By: _____

Its: _____

Emergency repairs can either be done by what is referred to as force account, by town employees, or by a contractor. If the town is not planning to complete the emergency repair work with their own forces, they should advertise the

work if feasible. The towns may contact a reasonable minimum number of contractors by telephone to solicit quotes for a defined scope of work. A summary of this should be kept by the town in their files. Conversely, if the repair work is done by force account, the town must keep good records of when the work was done, by whom, etc. Federal contracting requirements such as Davis-Bacon, Buy America, etc. still need to be complied with. Please see more detail in Pages 42-44.

Permanent repairs cannot be done by force account unless specific approval for such work is received from FHWA through VTrans. Otherwise the contracting is subject to 23 CFR Section 635 whereby an Invitation for Bids (IFB) is issued with plans and specifications and an award is made based on the lowest responsive and responsible bid. The following information applies to this process. FHWA requires that plans, specifications and an estimate be prepared for the project prior to authorization of construction funds. Please see Pages 33-34 for more information on this as well as requirements such as material testing. Any provisions necessary per 23 CFR 635 relative to awarding a contract must be clearly spelled out to potential bidders. Invitations for bid must be publicly advertised. We suggest that the town advertise the project on the Vermont Business Assistance Network (VBAN) web page through the Department of Economic Development. Advertisement should also be placed in two other sources, such as a state or regional newspaper. The advertisement and approved plans and specifications shall be available to qualified bidders for a minimum of three weeks prior to the opening of the bids. Federal regulations prevent any restrictions on who bids on the project as long as the bidder is “responsive and responsible” – i.e. towns cannot restrict bids to in-state or in-town contractors. Bids are expected to be read aloud at a specified time and place as indicated in the bid documents. The bid must be awarded to the lowest “responsive and responsible” bidder. There cannot be any negotiations with contractors during the period following the opening of bid(s) and before the award of the contract. In other words, a contract can only be signed with a contractor for the bid amount entered onto the bid form. The town should keep a record of this process and the results – including all associated documents – in its files.

See Pages 33-34 for a listing of contract requirements that must be included in your bidding documents and construction contract and that must be adhered to as construction advances. VTrans strongly urges that the project plans and specifications be developed using VTrans’ Standard Specifications for Construction; if they are, we will be able to assist you with providing bid documents that only have to have minimal project specific information added. This can be both a time and money saver to your community and can help ensure that all requirements needed for the bid documents are in place. We also strongly urge you to require that contractors bidding on the project are on VTrans’ list of qualified contractors for the type of work involved - this will help ensure that the bidders are “responsible”.

Logistics – how will this work?

We have tried to provide some information you will need to know to keep town efforts progressing for emergency relief work – whether it be emergency or permanent so that no missteps will occur. As stated previously, the first step will be to develop a grant agreement with you as technically the Agency of Transportation will be “sub-granting” federal-aid funds to you. This will both lay out payment provisions as well as future maintenance responsibilities. Reimbursement is on the basis of incurred expenses and proper documentation substantiating them will need to be included in any reimbursement requests. Once the grant agreement is in place, you will need to submit supporting documentation depending on whether or not the repairs have been classified as permanent or emergency.

Requirements for Emergency Repairs:

This can be a one-step process. You will be expected to submit a ROW Certification Letter as outlined above. As well, you will be expected to provide supporting documentation for expenses for which you are seeking reimbursement. If the emergency work was done by force account, or by town employees, you will need to provide details of who worked when for how long and what their hourly rate is. As well, details of use of any town equipment will need to be provided. Finally, any receipts for materials will need to be provided. These should be summarized for the total costs involved and presented with a formal request for reimbursement which clearly defines the requested amount.

If the town contracted out these services, receipts should be summarized and presented as well with a formal request for reimbursement which clearly defines the requested amount.

Requirements for Permanent Repairs:

This will be a two-step process. Prior to requesting authorization for construction funds from FHWA for the “project”, VTrans will need to confirm to FHWA that there is an appropriate NEPA document (CE, EA or EIS) in place, ROW has been cleared and that “Plans, Specifications and Estimate” for the project have been prepared. You should have already forwarded paperwork required for the project’s NEPA document and hopefully the process has been completed. You will need to confirm that the project scope has not changed from the description in the NEPA document. You will also need to submit a ROW Certification Letter as detailed above. Finally, you will need to submit the “Plans, Specifications and Estimate” that have been prepared for the repairs. Please see attached letter in Appendix E that the town can use for this submittal. Upon confirmation that all is in order, VTrans will request that construction funds be authorized by FHWA.

VTrans will notify you once the construction funding has been authorized which will allow the town to bid out the construction work. As with the consultant procurement process, the town will need to prepare a summary of the process followed for the bidding process for your files, including any pertinent documents such as the Invitation for Bids that were used in the solicitation and a bid analysis. The town, either through its own personnel or contracted professionals, will need to ensure that the project is built per the Plans and Specifications and that all the required contract provisions outlined earlier are complied with. We will ask that you certify this when requests for reimbursement are made.

Attached to this letter on Page 41 is a certification form that your community will need to include with the reimbursement request. It is critical that everything laid out in this letter is complied with to ensure that the repairs remain eligible for federal reimbursement. We will update you if any of the requirements change and if more information becomes available.

Finally, in Pages 42-44 there is material that was previously transmitted to the municipalities – there is more detailed information on the Davis-Bacon Act, Buy America, federal contracting requirements and retention of records and audit requirements.

Following is information to assist you with seeing your project successfully through construction. WE STRONGLY URGE THE TOWN/ CITY TO PROCURE THE SERVICES OF A QUALIFIED CONSTRUCTION INSPECTOR TO ENSURE THAT THE PROJECT IS BUILT PER PLANS AND SPECIFICATIONS. Procurement should follow the same process as for the design consultant. Following is some more detailed material for your use.

Plans, Specifications and Estimate

FHWA requires that contract plans, specifications and an estimate of the construction work be completed prior to authorization of construction funds. Some important items to include when preparing these are the following:

Material / Product Selection

It is not permissible to specify a brand name or patented material or product in the construction of a federal-aid project unless permission is granted in advance that such a specification is in the public interest by the FHWA. It should not be expected that permission would be granted unless the specified product is essential for synchronization with existing highway facilities (i.e. compatible traffic signal equipment in a coordinated system) or there is not any equally suitable alternate in existence. Additional detail may be found in 23 CFR 635.411.

Mobilization / Demobilization

Federal Highway Administration (FHWA) no longer allows for the withholding of retainage. VTrans suggests that our mobilization/ demobilization specification be used; following is an explanation of mobilization and demobilization:

Mobilization shall cover the period from the beginning of the project to substantial completion. This would include the establishment of all Contractor field offices, associated site work, and the movement of personnel, equipment, supplies, and incidentals to and from the project site.

Demobilization shall cover the period from substantial completion to completion and acceptance of the project. This would include the removal of all Contractor field offices, buildings, and other facilities on the project and for all other work that must be performed which shall include project clean up, establishment of vegetation and completion of work that is not associated with a specific pay item.

If the VTrans Specifications are not used by the municipality, it is suggested that similar language be included in the project specifications.

Material Testing and Certification

All projects funded with Federal transportation money need to have adequate construction supervision and inspection to ensure the project is completed in conformance with approved plans and specifications. In the plans and/ or project specifications, the design consultant needs to have prepared a plan detailing all sampling and testing requirements. It may be appropriate for many products to be certified, by the supplier, that the required specifications are met. It is important that some project materials be tested by an independent laboratory to ensure that they are in conformance with the plans and specifications. All individuals testing materials must be NETTCP Certified. The Agency has an approved Quality Assurance Program for material testing and can provide assistance in this area but this is dependent on use of VTrans' Standard Specifications for Construction. The municipality may contact _____ at 828-____ of our Materials and Research Section and supply them with a project plan cover sheet and itemized item and quantity sheet. Materials and Research personnel will then prepare a summary of all testing and certification requirements for the project for your use. If testing is required on the project, you will need to hire a testing firm(s), following proper procurement procedures, if your construction inspection consultant cannot provide these services.

Waste, Borrow & Staging Areas

It has been determined that the construction contractor's waste, borrow and staging areas are considered a part of a federal aid project with respect to environmental review and clearance. In order to allow contractors as much choice as possible in selecting those areas there is an agreement between the Agency of Transportation (VTrans) and the Federal Highway Administration (FHWA) that the approval of those sites will be done after the project construction contract is awarded. There are procedures outlined in Section 105.25 of the VTrans Standard Specifications for Construction that detail coordination between the construction contractor and the Agency's Environmental Section in getting those sites cleared prior to use by the contractor. If the VTrans Specifications are not used by the municipality similar language will need to be included in the project specifications.

It is important to note that the contractor's waste, borrow and staging areas will need to include appropriate erosion prevention and sediment control measures. Additional permits may be required from the Agency of Natural Resources (ANR), ACT 250 or others.

Invitations for Bid

Once again, we strongly suggest that you use our Standard Specifications for Construction and our generic bid documents to ensure no components are missed. If you would like a copy of our generic, fill in the blank bid documents, please contact Susan Scribner at 828-3588. If not using VTrans' documents, here are some elements that should be included in an Invitation for Bids (IFB):

- A description and location of the project to be bid as well as who is issuing the bids.
- Clear direction relative to how, when and where the project plans and specifications can be obtained and any cost involved with obtaining the documents.
- How and when the bids will be received.
- An explanation of the basis of award. Awards must be made based on the lowest responsive bid and a firm fixed-price award will be made in writing to the lowest responsive and responsible bidder, per 23 CFR 635.
- An explanation that all bids received in accordance with the terms of the solicitation will be publicly opened at the time and place prescribed and announced either item by item or by the total amount.
- Suggested that all potential contractors must be on the VTrans Approved list and the category of work (highway, bridge, etc.) defined.
- A statement apprising bidders that they must certify that they did not enter into any agreement, participate in any collusion, or otherwise take any action in restraint of free competitive bidding. This statement may be provided for contractors to sign directly on the bid form, but should still be pointed out up front.
- A statement that this project is funded in part with federal funds and that all applicable provisions apply. Specifically, bidders must be apprised of the civil rights and equal opportunity provisions in which they agree not to discriminate on the grounds of race, color, religion, sex or national origin. It should be made clear that the "Standard Federal Equal Employment Opportunity Construction Contract Specification" and the "Required Contract Provisions Federal-Aid Construction Contracts" will be part of the construction contract and that the chosen contractor must adhere to them.
- Any additional provisions that may apply, such as inclusion of Davis-Bacon wage rates, should be clearly spelled out.

- Bid form detailing the items and quantities to be bid on.
- Notification of any grievance procedures that may be in place.
- General statements attesting that the estimated quantities are not guaranteed but are given as a basis for the comparison of bids. The right is reserved to reject any or all bids, to waive any formality and all technicalities in bids and to accept such bid as may be deemed in the best interest of the awarding agency.
- A municipal contact person, to whom all questions during the bid process, should be addressed.
- Reference to Prompt Pay Compliance
- Work Zone Regulations
- Construction Bonds if desired by the municipality

Bid Opening

Bids are to be opened in a public forum and read aloud. A contract must be awarded to the lowest responsive and responsible bidder for the amount of the bid. A responsible bidder is one who is physically organized and equipped financially to undertake and complete the contract. A responsive bid is one that meets all the requirements of the advertisement and proposal. A non-responsive bid does not need to be read aloud. Some common reasons why a bid might be found non-responsive are:

- failure to sign the bid and/or signature by the appropriate person
- failure to furnish any required bid bonds
- failure to include a unit bid price for each item
- failure to include a total amount for the bid
- failure to prepare the bid in ink
- failure to submit a non-collusion affidavit

Bid Analysis

Following the opening of bids, it is required on federal-aid construction projects that the unit bid prices of the apparent low bid be examined for reasonable conformance with the engineer's estimated prices. Bids that vary greatly from the estimate or demonstrate obvious unbalancing of unit prices shall be further reviewed.

Bids can be unbalanced in two different ways: materially and mathematically. Mathematically unbalanced bids are individual price quotations that do not reasonably reflect actual costs. Materially unbalanced bids are ones that generate doubt that the award would result in the lowest ultimate cost. It is possible that bidders will purposely bid an unreasonably low cost to be deemed the low bidder and then, during construction, present evidence that they cannot supply the material or service at the quoted price and therefore request additional compensation. In other words, when preparing the bid, the bidder intentionally “underbids” in order to secure the construction project. Another possible scenario of material unbalance is that the bidder proposes a higher-than-average price for the items associated with mobilization of the project. Possible dangers to this scenario are that the contractor could be paid a substantial percentage of the project costs in the beginning and then find themselves in a position to not be able to complete the job and/or prioritize the job within their own workload. It is strongly suggested, that should any irregularities be suspected, that they be discussed, if necessary, with the apparent low bidder who may be able to provide a reasonable explanation.

Authorization to Award Contract

Municipalities will need to prepare a bid summary for VTrans that lists the names of all the bidders and the amounts of the associated bids. In addition, a summary of the bid analysis results should be included. There needs to be a written statement that the low bid offers no advantage to the contractor or disadvantage to the municipality and that the Town/City intends to award a contract to a specified contractor for the amount specified with a concurrence line. After the VTrans Project Manager has concurred with the bid analysis and summary, this will serve as written authorization for the municipality to enter into a contract with the low bidder. A Notice of Award letter shall be sent to the successful low bidder. Notification shall also be sent to the unsuccessful bidders.

Grievance Procedures - Bid Award:

It is the intent of the project sponsor to award a contract to the lowest responsive and responsible bidder, conforming to specification, provided the bid has been submitted in accordance with the requirements of the contract documents and does not exceed the funds available. If any bidder is aggrieved by the award, they may appeal in writing to the project sponsor and the appeal must be post-marked within seven (7) calendar days following the date of written notice to award the contract. Language to this effect shall be included in the Invitation for Bid document.

Change Orders

A change order is a written agreement between the Contractor and the Municipality covering work not otherwise provided for in the Contract, revisions or amendments to the terms of the Contract, including increases to the original quantities as set forth in the original Contract proposal or conditions specifically described in the specifications

as requiring a change order. Change Orders constitute amendments to the Contract once properly signed and executed.

During construction, it is often necessary to make timely decisions in the field relative to change orders, including item overruns, which could increase the overall construction costs. It is expected that such changes will generally fall within the amount set as the maximum limiting amount (MLA) but there may be circumstances that could justify an increase to the MLA of the cooperative agreement. Most change orders are expected to be covered by the contingency portion of the MLA. If any change orders result in an increase to the MLA, then an amendment must be signed and executed prior to incurring costs above the previously established MLA.

Change orders are normally initiated by the Contractor or the Construction Inspector. The Construction Inspector is the Municipality's representative in the field. In order to initiate the change order process, the Contractor and the Construction Inspector will need to provide justification, price, time to complete and a new completion date for all work. **FHWA REQUIRES THAT AN INDEPENDENT ESTIMATE BE PREPARED BY THE MUNICIPALITY FOR ANY NEW WORK TO THE CONTRACT BEFORE NEGOTIATING WITH THE CONTRACTOR.**

Prompt Pay Compliance

Vermont's Prompt Pay Statute requires payment from primes to subs within 7 days of primes receiving payment. Vermont State Statutes, Commerce and Trade, T.9§4003 © provides: "Notwithstanding any contrary agreement, when a subcontractor has performed in accordance with the provisions of its contract, a contractor shall pay a subcontractor, and each subcontractor shall in turn pay its subcontractors, the full or proportional amount received for each such subcontractor's work and materials based on work completed or service provided under the subcontractor, seven days after receipt of each progress or final payment or seven days after receipt of the subcontractor's invoice, whichever is later."

PLEASE SEE PAGE 39 AND PAGE 40 FOR PREVIOUSLY TRANSMITTED INFORMATION ON DAVIS BACON AND BUY AMERICA. THESE NEED TO BE COMPLIED WITH DURING THE CONSTRUCTION PHASE.

Preconstruction Conferences

To assist you with a productive kick-off meeting with your procured contractor, VTrans suggests using the following checklist for discussion at a preconstruction conference with the contractor:

Done ✓	
Introductions – explanation of respective roles	
Completion Date:	
Civil Rights Issues – Davis Bacon Rates, prompt pay, certified payrolls, poster packages and display of, general reporting, etc. by CR	
Review of project special provisions / use of 2006 Standard Specifications for Construction	
Subcontractor on project (must be preapproved):	
Construction Schedule	
Contractor Emergency Contacts and Competent Safety Officer:	
Materials requiring testing and frequency – no payment until there is a compliant test result. Allow time for possible re-sampling.	
Materials needing certification and type – no payment until certification is received	
Fabricators should be aware of certification and testing requirements	
Buy America. . If contractor proposes nominal use of foreign material per 23 CFR 635.410, they need to document and submit a request for concurrence.	
Permit conditions that must be complied with	
Review temporary EPSC requirements and the need to coordinate with ANR if disturbance ≥ 1 acre. Also, Low Risk Handbook	
Traffic Control Plan – submittal to CI	
Good public relations	
Legal Loads – must be legally loaded or have permit for overload	
ROW Discussion – must stay within unless contractor obtains permission	
Claims Process	
Change Orders	
Final Inspection	

Change Orders

Following is a suggested format for contract change orders – if a stand alone version is preferred, please contact Susan Scribner at 828-3588 and she will provide you with a copy electronically.

Date: _____

Change Order No: _____

Name of Project: _____

Municipality: _____

Contractor: _____

The following changes are hereby made to the Contract:

Justifications:

Change to Contract Price: \$ _____

Original Contract Price: \$ _____

Current Contract Price adjusted by previous Change Order: \$ _____

The Contract Price due to this Change Order will be (increased) decreased by: \$ _____

New Adjusted Contract Price: \$ _____

Change to Contract Time: _____

The Contract Time will be (increased) decreased by _____

Calendar days

The date for completion of all work will be _____

APPROVALS

Contractor: _____

Construction Inspector: _____

Municipality: _____

Final Inspection and Acceptance

A final inspection should be scheduled once a project is complete. The final inspection should include representatives from the contractor and the municipality as well as the construction inspector. The project site will be thoroughly inspected for flaws, incomplete work and needed changes. A punch list will be produced with the understanding that when the contractor completes the items on the punch list the project is complete and ready to be certified and accepted by the municipality. Once the punch list is completed and the municipality is satisfied with the project, the municipality will certify and accept the project. The payment of the final invoice shall be authorized once VTrans receives the completed certification and acceptance memo.

Following please find a suggested checklist to assist you with advancing your project

CONSTRUCTION CHECKLIST

Invitation for Bids

☐

1. advertise for bids for a minimum of three weeks ☐
2. hold a public bid opening at a specified date and time ☐
3. summarize and analyze bid results with a statement of intent relative to the bid award ☐
4. Confirm that apparent low bidder was responsive and responsible ☐

Award and execution of construction contract:

☐

5. municipality executes contract with low bid contractor ☐
6. pre-construction conference held with appropriate parties ☐

Project Construction:

☐

7. oversight by municipality (construction inspector) ☐
8. proposed waste, borrow & staging areas approved by VTrans ☐
9. shop drawings submittal and review if appropriate ☐
10. materials sampling, testing and certification ☐
11. project final inspection ☐

Completion & Acceptance:

☐

12. submittal of project certification & acceptance form ☐
13. submittal & payment of final invoice ☐

Sample Letter for Requesting Project Construction Authorization:

Date

Alec Portalupi, PE, Technical Services Engineer
Operations Division
Vermont Agency of Transportation
1 National Life Drive
Montpelier, VT 05633-5001

RE: (Insert Project Name and Number per Grant Agreement)

Dear Alec,

Please find attached the following information:

- Categorical Exclusion
- Right of Way Clearance Letter
- Plans, Specifications and Estimate

Accordingly, we ask that VTrans request that the Federal Highway Administration authorize construction funding. We will await word that this authorization has been granted prior to issuing the Invitation for Bids. Thank you – please contact (insert name of contact) at (insert telephone number) if you have any questions or need additional information.

Sincerely,

Attachments

Sample Letter for Completion and Acceptance and Reimbursement

Alec Portalupi, PE, Technical Services Engineer
Operations Division
Vermont Agency of Transportation
1 National Life Drive
Montpelier, VT 05633-5001

RE: (Insert Project Name and Number(s) per Grant Agreement)

Dear Alec,

A final inspection of the project(s) noted above has been completed. The work on the Project(s) has been performed within the requirements of all federal, state, and local laws, ordinances and regulations applicable to the Project as certified by (insert name of construction inspector)
and is hereby accepted by the _____

Municipality

Specifically we certify that we have complied with the required federal aid provisions outlined in the material transmitted by you on December 9, 2011 and as outlined in the grant agreement executed for the project. We understand that we need to retain all project files for a minimum of 3 years from this point and will make these files available for review if requested.

Attached please find our request for reimbursement for which we have included supporting documentation. If there are any questions, please contact (insert name and number for contact person).

Sincerely,

Signature of Authorized Municipal Official

Title

Date

DAVIS-BACON ACT

The Davis-Bacon Act is applicable to construction contracts and related subcontracts exceeding \$2,000 when the construction will be occurring within Federal-aid system highway right-of-way. **THIS REQUIREMENT HAS BEEN REMOVED FOR CONTRACTED SERVICES FOR DEBRIS REMOVAL ONLY.** Bid documents and contracts shall contain a schedule of wage rates as determined by the U.S. Department of Labor. The rates, including fringe benefits, must be incorporated in the contract specifications and are the minimum that must be paid to persons performing that class of labor on the project. These rates are published in the Federal Registry and are modified periodically. Current copies can be obtained from the following website: <http://www.aot.state.vt.us/civilrights/labor.htm>. **The wage rate schedule must be displayed on the project at a location convenient to all personnel prior to the contractor beginning any work on the project.**

A certified copy of each weekly payroll must be submitted by the prime contractor and each subcontractor within seven days after the regular payment date thereof. The weekly payroll copy must be accompanied with a certificate of compliance indicating that the attached payroll is correct and complete. Payrolls must be complete. The prime contractor is responsible for the submittal of payrolls by subcontractors. All basic records pertaining to the payrolls must be preserved for a period of three years after the completion of the project. Entries to be checked on every payroll include:

- work classifications & title code for each employee
- hourly wage rates for each employee including fringe benefits
- daily and weekly total hours
- signed certification
- itemized deductions
- all approved deductions
- wage rates verified with those shown in the applicable contract

Entries that need to be checked on at least the first two payrolls include:

- arithmetical accuracy
- overtime computations
- wage rates verified with those shown in the wage schedule
- employee's full name, address and Social Security Number

Laborers and mechanics employed by the prime contractor and subcontractors are covered by the contract provisions, but employees of material suppliers are not. The prime contractor is responsible for violations of labor provisions by the subcontractors. Owner/Operators of non-hauling equipment are considered employees and must be included on the prime or subcontractors payroll. Owner/Operators of non-hauling equipment are covered by the labor standards

provisions. Truck owner-operators are not considered subcontractors and are not covered by the labor standard provisions.

BUY AMERICA REQUIREMENTS:

Buy America requirements of 23 CFR 635.410 are applicable to all Federal-aid construction projects, including those of an emergency nature if the emergency repair will **permanently** incorporate steel or iron products into repairs on the Federal-aid system. All steel or iron products **permanently** incorporated into Federal-aid projects, shall be products that have been entirely manufactured within the United States. All manufacturing processes of the steel or iron material, in a product, must occur within the United States to be considered of domestic origin. This includes processes such as rolling, extruding, machining, bending, grinding, and drilling. The action of applying a coating to a material is deemed a manufacturing process subject to Buy America. Coating includes epoxy coating, galvanizing, painting, and any other coating that protects or enhances the value of the material.

When the products utilized are to be permanently incorporated into a Federal-aid project, municipalities must receive certification from their contractors that the products used on the project do conform to the requirements of Buy America. Conversely, if the municipality is repairing their facility under force-account, i.e. using their own public works staff, they must obtain certifications from any suppliers of products that need to comply with the requirement of Buy America.

This requirement does not prevent a minimal use of foreign materials, provided the cost of foreign materials used does not exceed 0.1 percent of the total contract price or \$2,500, whichever is greater. The cost of foreign steel or iron is defined as its value delivered to the project. However, the value of any steel or iron products felt to be exempt from Buy America requirements must be documented by the municipality so it can be confirmed that the total value of all products does not exceed the \$2,500 threshold **per contract**. This includes bolts, fasteners, etc.

While it is easy to think about steel products in bridges, for instance, it can be easier to forget about the applicability of iron products. Many drop inlets, for instance, utilize iron grates and may need to be replaced as a result of this flood event.

RETENTION OF RECORDS AND AUDIT REQUIREMENTS:

Prior to any reimbursement of federal emergency relief funds, municipalities will need to enter into a grant agreement with the State. The following two requirements will be included in any such agreement so planning ahead will benefit all involved parties; please note that the timelines for requirements begin once the grant agreement is executed.

Records Available for Audit: The municipality will maintain all books, documents, payroll papers, accounting records and other evidence pertaining to costs incurred under this agreement and make them available at reasonable times during the period of the agreement and for three years thereafter for inspection by any authorized representatives of the State or Federal Government. If any litigation, claim, or audit is started before the expiration of the three year period, the records shall be retained until all litigation, claims or audit findings involving the records have been resolved. The State, by any authorized representative, shall have the right at all reasonable times to inspect or otherwise evaluate the work performed or being performed under this agreement.

Requirement to Have a Single Audit: If this subrecipient expends \$500,000 or more in federal assistance during its fiscal year, it is required to have a single audit conducted in accordance with the Single Audit Act, except when it elects to have a program-specific audit.

The subrecipient may elect to have a program-specific audit if it expends funds under only one federal program and the federal program's laws, regulating or grant agreements do not require a financial statement audit of the entity.

If the subrecipient should spend less than \$500,000 in aggregate federal funds in any single fiscal year, organization-wide financial statements and a schedule of federal financial assistance for VTrans funds only shall be submitted within nine (9) months of the end of the fiscal year. The federal financial assistance schedule will list the funds by title, Code of Federal Domestic Assistance (CFDA) number, pass-through Municipal's number, award amount, receipts, and expenditures. At the Program Manager's discretion, agreed upon procedures, related to the VTrans schedule of federal financial assistance, may be required to be performed by a certified independent audit firm.

The State always reserves the right to withhold reimbursement of project costs if the subrecipient does not comply with the requirements of this section. Municipalities should not expect that any costs needed to comply with audit requirements will be eligible for federal emergency relief fund reimbursement, i.e. municipalities should expect to cover these costs with their own funds.

FEDERAL CONTRACTING REQUIREMENTS:

All regular federal contracting requirements must be adhered to, even during emergency situations. In addition to Davis Bacon requirements, there must be inclusion of the following documents into a

construction contract:

- Contractors EEO Certification Form CA-109
- Debarment & Non-Collusion Affidavit CA-91
- Required Contract Provisions for Federal-Aid Construction, FHWA Form 1273
- Standard Federal EEO Specifications (Executive Order 11246) CA-26
- Certification of Federal Aid Contracts CA-163
- Vermont Minimum Labor & Truck Rates CA-101
- Disadvantaged Business Enterprise (DBE) Policy Contract Requirements CA-110

One of the very practical requirements that arises from FHWA Form 1273 is the requirement for a number of posters apprising workers of their rights; we often call this a “poster package”. **FHWA requires 11 posters to be prominently displayed (usually on a bulletin board) on all federally funded construction projects, to place all workers and the traveling public on notice of all EEO, non-discrimination, and wage rights and remedies. These posters are available on the CR webpage:**

<http://www.aot.state.vt.us/civilrights/PosterPackageForms.htm>,

Since some ER projects will not lend themselves to a bulletin board display of posters, FHWA has approved the following plan:

- For the small number of ER projects with a staging area, posters and directions should be available by the municipalities for display.
- If no logical staging area for project, contractor HAS to display all the posters at their home office as well as provide each employee a copy.

You can find a link to all the required contract provisions on our web site at:<http://www.aot.state.vt.us/Irene/DisasterPrograms/FHWAAdditionalInfo.htm>

1. Event Occurs causing damage to Facilities
2. Verify Damage is located on a FHWA eligible road. FHWA Maps are located in Appendix A
3. Notify the Applicant's local VTrans District Office with the Damage Assessments using the ER Application on Pages 47 & 48. Contact information is located on Page 1.
4. If a disaster is officially declared VTrans will be triggered by the Application (Pages 47 & 48) to create and send a standard agreement for the Applicant to sign. **NO PAYMENT CAN BE PROCESSED TILL VTRANS HAS A FULLY EXECUTED AGREEMENT.**
5. VTrans will work with Applicant to write a Disaster DDIR (Detailed Damage Assessment Report). See example on Page 49. The DDIR will be signed by both a State Representative and a Town Representative.
6. Follow all procedures in manual. **ANY PLANS NEED TO BE REVIEWED BY VTRANS.**
7. Finish work if not already finished. **PLEASE MAKE SURE ANY WORK DONE CAN BE IDENTIFIED BY ROAD OR SITE.**
8. Once bills that have been paid that the Applicant would like reimbursement for, **please request them through the District Contact.**
9. Payments should include a Payment Request letter on Town Letterhead and should include everything on the FHWA ER Checklist (Page 50)
10. The District will do an initial review of the Submission. **If anything on the checklist is missing the paperwork will be returned to the Applicant.**
11. After the District finished initial review the submission will be review in VTrans Operations Headquarters in Montpelier.
12. Assuming all paperwork is in order. A payment will be submitted from us to be paid by the State Treasurer. The estimated time frame from Headquarters initiating a payment to the Applicant receiving the payment is **approximately 10 working days.**



AGENCY OF TRANSPORTATION

FHWA ER VT 13-1 GRANT APPLICATION

MUNICIPALITY (name):

MUNICIPAL ADDRESS:

MUNICIPAL CONTACT (name):

Phone:

E-Mail:

SCOPE OF WORK TO BE PERFORMED BY GRANTEE

Location of Work. The work described below involves the following town highway structure:

TH# _____, (Name) _____

Latitude _____ Longitude _____

Bridge # _____, which crosses _____

Culvert # _____, for which the original size was _____ and the replacement size is _____

Damage Description _____

DAMAGE ESTIMATE AMOUNT:

Location of Work. The work described below involves the following town highway structure:

TH# _____, (Name) _____

Latitude _____ Longitude _____

Bridge # _____, which crosses _____

Culvert # _____, for which the original size was _____ and the replacement size is _____

Damage Description _____

DAMAGE ESTIMATE AMOUNT:

Location of Work. The work described below involves the following town highway structure:

TH# _____, (Name) _____

Latitude _____ Longitude _____

Bridge # _____, which crosses _____

Culvert # _____, for which the original size was _____ and the replacement size is _____

Damage Description _____

DAMAGE ESTIMATE AMOUNT:

Location of Work. The work described below involves the following town highway structure:

TH# _____, (Name) _____

Latitude _____ Longitude _____


Bridge # _____, which crosses _____

Culvert # _____, for which the original size was _____ and the replacement size is _____

Damage Description _____

DAMAGE ESTIMATE AMOUNT:

Location of Work. The work described below involves the following town highway structure: TH# _____, (Name) _____ Latitude _____ Longitude _____ Bridge # _____, which crosses _____ Culvert # _____, for which the original size was _____ and the replacement size is _____ Damage Description _____ _____ _____
DAMAGE ESTIMATE AMOUNT:
Location of Work. The work described below involves the following town highway structure: TH# _____, (Name) _____ Latitude _____ Longitude _____ Bridge # _____, which crosses _____ Culvert # _____, for which the original size was _____ and the replacement size is _____ Damage Description _____ _____ _____
DAMAGE ESTIMATE AMOUNT:
Location of Work. The work described below involves the following town highway structure: TH# _____, (Name) _____ Latitude _____ Longitude _____ Bridge # _____, which crosses _____ Culvert # _____, for which the original size was _____ and the replacement size is _____ Damage Description _____ _____ _____
DAMAGE ESTIMATE AMOUNT:
Location of Work. The work described below involves the following town highway structure: TH# _____, (Name) _____ Latitude _____ Longitude _____ Bridge # _____, which crosses _____ Culvert # _____, for which the original size was _____ and the replacement size is _____ Damage Description _____ _____ _____
DAMAGE ESTIMATE AMOUNT:
Location of Work. The work described below involves the following town highway structure: TH# _____, (Name) _____ Latitude _____ Longitude _____ Bridge # _____, which crosses _____ Culvert # _____, for which the original size was _____ and the replacement size is _____ Damage Description _____ _____ _____
DAMAGE ESTIMATE AMOUNT:
TOTAL FHWA DAMAGE ESTIMATE:
AUTHORIZED SIGNATURE: _____ DATE: _____

 Detailed Damage Inspection Report (Title 23 Federal-Aid Highways)						Report No.	
Location (Name of Road and Milepost)						Sheet 1 of 1	
						FHWA Disaster No.	
						Inspection Date	
Description of Damage						Federal-Aid Route Number	
						State Vermont	County
Cost Estimate							
Emergency	Description of Work to Date	Unit	Unit Price	Quantity	Cost		
					Completed	Remaining	
					\$0.00	\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
Method:					Subtotal	\$0.00	
<input checked="" type="checkbox"/> Local Forces	<input type="checkbox"/> State Forces	<input checked="" type="checkbox"/> Contract		PE/CE		\$0.00	
				Emergency Repair Total		\$0.00	
Permanent					\$0.00	\$0.00	
				4.5		\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
						\$0.00	
Method:					Subtotal	\$0.00	
<input checked="" type="checkbox"/> Local Forces	<input type="checkbox"/> State Forces	<input checked="" type="checkbox"/> Contract		PE/CE		\$0.00	
				ROW		\$0.00	
				Perm Total		\$0.00	
Environmental Assessment Recommendation			Total Estimated Cost		\$0.00		
<input checked="" type="checkbox"/> Categorical Exclusion	<input type="checkbox"/> EA/EIS						
Recommendation			FHWA Engineer		Date		
<input checked="" type="checkbox"/> Eligible	<input type="checkbox"/> Ineligible		*				
Consentance			State Engineer		Date		
<input type="checkbox"/> Yes	<input type="checkbox"/> No						
Consentance			Local Agency Representative		Date		
<input type="checkbox"/> Yes	<input type="checkbox"/> No						

* Not required in accordance with the May 19, 2008 FWHA/AOT Stewardship Agreement

FHWA ER Submittal Checklist

Disaster #:
DDIR #:
Grantee:
Grant#: ER____
Town:
DDIR Estimate:
DDIR Actual:
Project Manager:
180 Day Period End Date:

Town Section:

	Yes	No	N/A
1. All invoices and timesheets from town properly authorized (signed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Verified no tax included on any of the receipts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Proof of payment from town to contractors (minimum check # & date paid)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Verified "Work Performed" dates when determining % reimbursement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Verified all calculations on backup documentation are correct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Verified no markup on materials purchased by town	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Markup on contractors' materials limited to 10% or less	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Paperwork organized in order of FHWA Spreadsheet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Clearly mark items for reimbursement on invoices (ex. Highlight)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Clearly Mark "Final Invoice" on last invoice to State.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. TA-65ER Completed, Signed and Submitted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature on Behalf of Town: _____ Date: _____

Project Manager Section:

1. Verifying FHWA Payment Submission Sheet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Reviewed all supporting documentation for compliance (see above)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project Manager Signature: _____ Date: _____

Reviewer Signature: _____ Date: _____

Other Comments:

TA-65ER

Completed, Signed and Submitted with Payment Request

<p align="center">STATE OF VERMONT AGENCY OF TRANSPORTATION FHWA EMERGENCY RELIEF FUNDS 19 V.S.A. SECTION 306 (f)</p>			
NAME OF TOWN/VILLAGE/CITY	DISTRICT NO.	Contract NO.	CHECK WHICH: Partial Claim <input type="checkbox"/> Final Claim <input type="checkbox"/>
Name And Address Of Claimant			
I (WE) SWEAR TO THE CORRECTNESS OF THE STATEMENTS MADE IN THIS CLAIM (AND THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS FURNISHED BY THE VERMONT AGENCY OF TRANSPORTATION) AND THAT THE TOWN HAS PAID FOR THE EXPENSES SHOWN HEREON, BOTH LABOR AND MATERIALS. AUTHORIZED TOWN SIGNATURE _____ _____ _____ _____		COST OF WORK AS PER EXPENSES (See Attached FHWA Payment Submission Sheet) Amount of Payment \$ _____ Approved Dated _____ _____ Authorized <u>VTrans</u> Representative	

Major Collectors

Town	Route	MC Number	Begin_Descr	End_Descr	Length
Alburgh	TH 3	S0291	VT 129	US 2	4.45
Alburgh	VT 22	S0293	US 2	United States-Canada Boundary	1.59
Alburgh	TH 2	S0295	VT 78	United States-Canada Boundary	2.90
Andover	TH 1	S0132	T / L	T / L	4.83
Arlington	TH 1	S0114	VT-7A	T / L	1.48
Arlington	TH 3	S0121	VT 313	T / L	1.25
Arlington	TH 1	S0171	VT 313	FAS 0114 (TH 1)	0.64
Arlington	TH 4	S0171	FAS 0114 (TH 1) / Maple Street	T / L	0.45
Athens	TH 1	S0125	T / L	T / L	4.99
Barnet	TH 4	S0215	T / L	T / L	1.80
Barnet	TH 1	S0216	T / L	Begin of Barnet State Hwy	5.04
Barnet	TH 3	S0220	US 5	T / L	3.66
Barre Town	TH 1	S0205	T / L	TH 1 / TH 4	1.63
Barre Town	TH 2	S0206	F.A.S. Route 0205	VT 110	2.54
Barre Town	TH 7	S0214	VT 14	TH 6	1.45
Barton	VT 16	S0286	US 5	T / L	6.31
Bennington	TH 3	S0103	T / L	Bennington F.A.U. Limit (South).	2.32
Bennington	TH 5	S0173	Bennington F.A.U. Limit / TH 89	T / L	2.05
Berkshire	TH 3	S0302	VT 108	T / L	6.38
Berkshire	TH 5	S0307	VT 105	F.A.S. Route 0302	4.10
Berlin	TH 1	S0201	T / L	TH 14	2.14
Bethel	TH 2	S0176	T / L	VT 12	6.11
Bethel	Approach	S0176	F.A.S.0176	VT 12	0.05
Bolton	TH 3	S0223	US 2	End of road	4.37
Bradford	TH 1	S0192	T / L	VT 25	1.82

Brandon	TH 6	S0175	VT 73	T / L	1.33
Brandon	TH 8	S0227	US 7	VT 73	3.30
Bristol	TH 2	S0183	T / L	VT 116	0.43
Bristol	TH 3	S0188	VT 116	T / L	1.10
Bristol	TH 4	S0199	VT 116	T / L	3.68
Brookfield	TH 5	S0264	T / L	T / L	0.48
Buels Gore	TH 1	S0211	T / L	T / L	0.45
Burke	TH 3	S0261	T / L	T / L	1.40
Burke	TH 2	S0267	VT 114	VT 5A	4.95
Burke	TH 7	S0268	VT 114	TH 41	1.95
Cabot	TH 1	S0249	T / L	T / L	6.81
Calais	TH 1	S0242	T / L	T / L	7.35
Calais	TH 1	S0243	T / L	F.A.S. Route 0242	3.12
Cambridge	TH 5	S0233	T / L	VT 108	4.80
Cambridge	TH 4	S0274	T / L	T / L	2.20
Cambridge	TH 2	S0280	T / L	VT 15	1.26
Castleton	TH 2	S0265	VT-4A	TH-13	4.10
Charlotte	TH 2	S0208	US 7	T / L	4.64
Chelsea	TH 1	S0264	T / L	VT-110	2.89
Chester	TH 3	S0125	T / L	VT 11/ VT 103	2.61
Chester	TH 7	S0132	T / L	VT 11	1.48
Chittenden	TH 2	S0165	T / L	T / L	5.75
Clarendon	TH 1	S0127	US 7	T / L	4.11
Concord	TH 4	S0218	US 2	T / L	3.56
Concord	TH 1	S0277	US 2	T / L	2.62
Corinth	TH 3	S0192	T / L	T / L	8.52
Corinth	TH 1	S0193	VT 25	T / L	1.10
Coventry	TH 1	S0315	US 5	Coventry State Hwy	3.74
Craftsbury	TH 3	S0247	T / L	VT 14	3.32
Craftsbury	TH 1	S0253	VT 14	VT 14	5.46
Craftsbury	TH 2	S0255	F.A.S. Route 0253	T / L	2.18
Danby	TH 1	S0130	T / L	T / L	8.49
Danville	TH 2	S0215	T / L	T / L	10.22
Derby	TH 4	S0317	T / L	F.A.S.0319 - Beebee Plain Rd	4.78
Derby	TH 3	S0319	US 5	United States- Canada Boundary	3.16

Dorset	TH 3	S0194	VT 30	VT 7A	3.70
Dover	TH 4	S0104	VT 100	F.A.S. Route 0106.	1.38
Dover	TH 1	S0106	T / L	T/L	4.37
Dover	TH 5	S0115	T / L	Ski Area (TH 41)	3.85
Dover	TH 3	S0221	FAS 0115	VT 100	0.23
Dover	TH 3	S0222	FAS 0115	VT 100	0.52
Dummerston	TH 5	S0106	T / L	VT 30	0.06
E Montpelier	TH 1	S0243	F.A.U. Limit at T-22 (Lyle Road)	T / L	1.32
E Montpelier	TH 2	S0246	F.A.U. Limit at Maplewood Road	US 2	1.40
Elmore	TH 2	S0324	VT 12	T / L	0.40
Fairfax	TH 2	S0280	VT 104	T / L	3.62
Fairfield	TH 1	S0281	T / L	T / L	8.72
Fayston	TH 2	S0185	T / L	VT 17	2.60
Fayston	TH 23	S0195	FAS 0185	Intersecting Highways	0.18
Ferrisburg	TH 2	S0182	T / L	US 7	0.12
Ferrisburg	TH 3	S0186	T / L - Begin State HWY	T / L	4.68
Ferrisburg	TH 2	S0197	US 7	T / L	3.34
Ferrisburg	TH 1	S0198	US 7	T / L	1.72
Fletcher	TH 1	S0280	T / L	T / L	4.92
Fletcher	TH 2	S0281	F.A.S. Route 0280 - Fairfield Rd	T / L	6.23
Franklin	TH 2	S0297	T / L	F.A.S. 0299	0.58
Franklin	Approach	S0299			0.03
Franklin	VT 235	S0299	VT 120	United States-Canada Boundary	4.65
Franklin	TH 3	S0301	T / L	VT 120	3.62
Grafton	TH 3	S0125	T / L	T / L	8.66
Grafton	VT 121	S0126	T / L	VT 35 (null)	5.70
Grafton	VT 121	S0126	VT 35	T / L	0.19
Granby	TH 1	S0277	T / L	T / L	5.27
Grand Isle	TH 1	S0275	VT 314	US 2	4.71
Greensboro	TH 1	S0255	T / L	VT 16	7.74
Greensboro	TH 2	S0257	T / L	F.A.S. Route 0255	1.36

Groton	TH 1	S0193	T / L	US 302	2.25
Groton	TH 2	S0215	US 302	T / L	2.54
Guildhall	TH 1	S0277	T / L	VT 102	3.93
Hardwick	TH 3	S0257	VT 15	T / L	5.21
Hartford	TH 5	S0166	T / L	VT 14	0.90
Hartford	TH 4	S0168	US 4	US 4.	2.10
Hartford	TH 4	S0179	F.A.S. Route 0168	F.A.S. Route 0166	6.00
Hartford	TH 2	S0230	US 5	T / L	0.41
Hartford	TH 131	S0325	US 5	South Main Street	0.97
Hartland	TH 3	S0152	T / L	VT 12	1.92
Highgate	VT 207	S0297	VT 78	T / L	5.78
Highgate	TH 1	S0300	US 7	VT 78	3.58
Highgate	TH 3	S0301	VT 78	T / L	2.15
Hinesburg	TH 4	S0199	T / L	VT 116	3.39
Hinesburg	TH 3	S0208	T / L	VT 116	2.61
Hinesburg	TH 2	S0209	VT 116	T / L	4.33
Hinesburg	TH 1	S0210	T / L	VT 116	2.96
Hinesburg	TH 5	S0212	VT 116	T / L	2.80
Huntington	TH 1	S0211	T / L	T / L	9.70
Huntington	TH 2	S0212	T / L	F.A.S. Route 0211- Main Rd	1.48
Hyde Park	TH 5	S0239	T / L	VT 15	0.69
Jamaica	TH 2	S0123	T / L	T / L	0.44
Jericho	TH 4	S0209	T / L	VT 15	5.98
Jericho	TH 7	S0213	T / L	F.A.S. Route 0209	1.49
Jericho	TH 5	S0233	VT 15	T / L	0.43
Jericho	TH-1	S0326	F.A.S. 209 / Lee River Rd	VT 15	2.48
Johnson	TH 4	S0274	T / L	VT 15	2.41
Killington	TH 2	S0159	State Forest Boundary	US 4	2.97
Landgrove	TH 1	S0120	T / L	T / L - District Break	3.85
Leicester	TH 1	S0160	T / L	US 7	3.16
Leicester	TH 4	S0175	T / L	T / L	3.83
Lincoln	TH 1	S0188	T / L	T / L	7.25
Londonderry	TH 3	S0123	T / L	VT 11	0.34
Lowell	VT 58	S0308	T / L	VT 100	4.15
IsleLaMotte	VT 129	S0290	TH 2 / TH 6	VT 129	2.27

Ludlow	TH 3	S0189	VT 103	Begin of State Hwy	0.54
Lunenburg	TH 1	S0218	T / L	US 2	7.25
Lunenburg	TH 2	S0219	F.A.S. Route 0218	US 2	1.90
Lyndon	TH 4	S0261	US 5	T / L	0.60
Lyndon	TH 6	S0263	T / L	US 5	2.61
Manchester	TH 5	S0116	VT 11	TH 40	0.40
Manchester	TH 2	S0119	VT-7A	VT 30	3.44
Manchester	TH 6	S0171	T / L	VT 11	4.90
Marshfield	VT 215	S0249	US 2	T / L	1.40
Middletown Springs	VT 140	S0138	T / L	VT 133	3.20
Monkton	TH 1	S0197	T / L	F.A.S. Route 0198	4.31
Monkton	TH 1	S0198	T / L	F.A.S. Route 0199	4.59
Monkton	TH 1	S0199	T / L	T / L	7.06
Montgomery	VT 58	S0308	VT 118	T / L	4.80
Morristown	TH 5	S0237	T / L	F.A.S. Route 0239	5.41
Morristown	TH 3	S0238	F.A.S. Route 0239 - TH 2	VT 100	0.73
Morristown	TH 2	S0239	VT 100	T / L	2.47
Mount Holly	TH 1	S0143	VT 155	VT 103	3.50
Mount Tabor	TH 1	S0130	T / L	US 7	0.06
New Haven	TH 2	S0183	US 7	T / L	4.72
Newfane	TH 2	S0106	T / L	T / L	7.46
North Hero	TH 1	S0289	US 2	US 2	4.00
Norwich	TH 3	S0177	T / L	US 5	2.91
Orwell	TH 2	S0156	T / L	VT 22A	4.95
Panton	TH 1	S0184	THs 1 & 2	F.A.S. Route 0186	2.90
Panton	TH 3	S0186	T / L	T / L	1.34
Pawlet	TH 1	S0128	VT 153 (TH 3)	VT 30	1.61
Pawlet	TH 4	S0130	VT 133 (TH 2)	T / L	1.66
Pawlet	TH 3	S0131	T / L	VT 30	6.06
Peacham	TH 3	S0215	T / L	T / L	5.69
Peacham	TH 1	S0216	F.A.S. Route 0215	T / L	0.90
Peru	TH 1	S0120	VT 11	T / L	3.57
Pittsford	TH 1	S0155	T / L	US 7	3.34

Pittsford	TH 3	S0165	T / L	T / L	0.60
Pittsford	TH 4	S0165	T / L	US 7	2.80
Pomfret	TH 1	S0166	T / L	T / L	10.15
Pomfret	TH 3	S0177	F.A.S. Route 0166	T / L	1.77
Poultney	VT 140	S0138	VT 30	T / L	4.97
Pownal	TH 2	S0103	VT-346	US 7	2.89
Pownal	TH 3	S0103	US 7	T / L	5.25
Proctor	TH 2	S0155	T-10 / Beaver Pond Rd	T / L	1.95
Putney	TH 1	S0129	US 5	T / L	3.48
Randolph	TH 3	S0264	VT-14	T / L	3.56
Readsboro	TH 2	S0105	T / L	VT 100	1.60
Richford	TH 2	S0302	T / L	F.A.S. Route 0309	1.62
Richford	VT 139	S0309	VT 105	United States-Canada Boundary	1.82
Richmond	TH 4	S0209	T / L	T / L	7.48
Richmond	TH 1	S0211	T / L	F.A.S. Route 0209	3.47
Richmond	TH 6	S0213	VT 117	T / L	0.80
Rochester	TH 1	S0176	VT 100	T / L	4.10
Rockingham	TH 5	S0117	US 5 / Westminster St	US 5 / Rockingham St	0.91
Rockingham	VT 121	S0126	T / L	T / L	5.19
Rockingham	VT 121	S0126	T / L	US 5	0.40
Rockingham	VT 121	S0126	F.A.S. 0117 / TH 5	Vermont-New Hampshire State Line	0.04
Rockingham	TH 2	S0129	T / L	VT 121 (TH 1)	1.32
Rockingham	TH 3	S0129	VT 121 (TH 1)	VT 103	4.67
Rockingham	TH 6	S0224	Weston Street / Rockingham St	Vermont-New Hampshire State Line	0.25
Roxbury	TH 1	S0188	T / L	VT 12A	3.08
Rupert	VT 315	S0122	VT 153 (TH 1)	VT 30	5.83
Rupert	VT 153	S0131	VT 315 (Th 2)	T / L	4.12
Rutland Town	TH 3	S0127	T / L	US 7	0.32
Rutland Town	TH 1	S0165	T-14 - Blueberry or Prospect Ln	T / L	2.19

Ryegate	TH 4	S0215	T / L	T / L	2.32
Salisbury	TH 3	S0175	T / L	US 7	4.15
Sandgate	TH 1	S0121	T / L	TH 2	1.85
Shaftsbury	TH 3	S0112	Bennington FAU Limit (North)	Vermont-New York State Line.	2.22
Shaftsbury	TH 6	S0173	T / L	VT 7A	3.16
Sharon	TH 5	S0177	T / L	VT 14	3.30
Sharon	TH 2	S0177	VT 14	T / L	4.02
Sheldon	TH 4	S0281	T / L	VT 105	2.16
Shoreham	TH 2	S0156	VT 74	T / L	0.90
Shoreham	TH 1	S0160	VT 22A	T / L	4.80
Springfield	TH 5	S0135	VT 11	T / L	3.17
Springfield	VT 143	S0136	VT 11	US 5	5.75
Starksboro	TH 4	S0211	VT 17	T / L	0.91
Starksboro	TH 2	S0212	T / L	T / L	0.86
Stowe	TH 1	S0236	VT 100	VT 108	3.87
Stowe	TH 4	S0237	VT 100	T / L	1.56
Stratford	TH 1	S0177	T / L	T / L	4.63
Stratton	TH 1	S0114	T / L	T / L	7.47
Stratton	TH 2	S0118	Stratton- Jamaica Town Line	T / L	2.58
Sunderland	TH 3	S0114	T / L	T / L	9.80
Sunderland	TH 1	S0171	T / L	T / L	4.82
Sutton	TH 1	S0261	T / L	TH 2 -Burke Rd	2.62
Thetford	TH 1	S0177	T / L	T / L	5.17
Tinmouth	VT 140	S0138	VT 133	T / L	5.93
Tinmouth	TH 5	S0140	T / L	VT 133	0.06
Topsham	TH 1	S0193	T / L	T / L	9.11
Townshend	TH 3	S0123	VT 30	T / L	2.67
Townshend	VT 35	S0125	VT 30	T / L	4.98
Underhill	TH 1	S0233	T / L	T / L	8.34
Vergennes	TH 7	S0182	VT 22A	T / L	0.37
Vergennes	TH 3	S0186	T / L	'VT 22A	0.57
Vershire	TH 1	S0192	VT 113	T / L	1.48
Victory	TH 1	S0277	T / L	T / L	8.79
Walden	TH 3	S0249	T / L	VT 15	0.95
Wallingford	VT 140	S0138	T / L	US 7	2.42
Wardsboro	TH 6	S0114	Stratton / Wardsboro T /	VT 100	1.21

			L		
Warren	TH 5	S0185	VT 100	T / L	2.95
Warren	TH 1	S0188	T / L	VT 100	3.77
Warren	TH 3	S0188	VT 100	T / L	5.69
Warren	TH 5	S0203	Sugarbush Parking Lot	F.A.S. 0185	1.09
Waterford	TH 2	S0220	T / L	VT 18	5.19
Waterville	TH 2	S0274	VT 109	T / L	0.04
Weathersfield	TH 1	S0135	T / L	VT 131	5.25
Wells	TH 1	S0140	VT 30	T / L	4.59
Westfield	VT 58	S0308	T / L	T / L	1.52
Westford	TH 2	S0276	T / L	VT 128	1.83
Westminster	VT 121	S0126	T / L	T / L	1.83
Westminster	TH 2	S0129	T / L	T / L	7.90
Westmore	TH 1	S0286	T / L	VT 5A	0.75
Weston	TH 2	S0120	T / L - District Break	VT 100	1.48
Weston	TH 1	S0132	VT 100	T / L	1.37
Weybridge	TH 1	S0181	T / L	VT 17	6.60
Whiting	TH 1	S0160	T / L	T / L	3.64
Whitingham	TH 2	S0105	Vermont- Massachusetts State Line	T / L	1.27
Whitingham	VT 8A	S0111	Vermont- Massachusetts State Line	VT 112	3.30
Williamstown	TH 1	S0205	VT 14	T / L	3.96
Wilmington	TH 2	S0106	VT 100	T / L	0.92
Wilmington	TH 1	S0115	VT 100	T / L	2.73
Windham	TH 1	S0123	T / L	T / L	6.79
Windham	VT 121	S0126	F.A.S. Route 0123	T / L	2.41
Windsor	TH 4	S0148	US 5	Vermont-New Hampshire State Line	0.22
Windsor	TH 3	S0152	US 5	T / L	4.37
Winhall	TH 1	S0118	T / L	VT 30	3.56
Wolcott	TH 1	S0247	VT 15	T / L	5.25
Wolcott	TH 4	S0324	T / L	VT 15	3.48
Woodbury	TH 1	S0242	T / L	VT 14	1.25
Woodstock	TH 1	S0166	'VT 12	T / L	0.88

Worcester	TH 1	S0242	VT 12	T / L	2.00
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Federal Aid Urbans

Town	Route	FAU Number	Begin_Descr	End_Descr	Length
Barre City	BLACKWELL	S6001	Centre St	US 302 (North Main St)	0.22
Barre City	AYERS	S6002	VT 14 (South Main St)	Boynton St	0.46
Barre City	BROOK	S6003	US 302 (North Main St)	VT 14 (Maple St)	0.36
Barre City	BECKLEY	S6004	US 302 (North Main St)	T / L	0.53
Barre City	BROOKLYN	S6005	Projection / dead end	Prospect St	0.42
Barre City	BERLIN	S6006	Prospect St	US 302 (North Main St)	0.71
Barre City	BURNHAM	S6007	Granite St	Prospect St	0.24
Barre City	CAMP	S6008	Hill St	T / L	0.58
Barre City	CENTRE	S6009	Blackwell	George	0.12
Barre City	ELM	S6010	US 302 (North Main St)	Summer St	0.14
Barre City	FRANKLIN	S6012	Summer / Elm	Wellington	0.02
Barre City	HILL	S6014	VT 14 (South Main St)	T / L	0.81
Barre City	MERCHANT	S6018	Summer	VT 14 (Maple St)	0.67
Barre City	PROSPECT	S6022	T / L	VT 14 (South Main St)	1.45
Barre City	QUARRY	S6024	VT 14 (South Main St)	T / L	0.27
Barre City	RIVER	S6025	George	Granite	0.29
Barre City	SEMINARY	S6026	US 302 (North Main St)	US 302 (North Main St)	0.53
Barre City	SMITH	S6027	Berlin	Blackwell	0.20
Barre City	SUMMER	S6028	VT 14 (Maple St)	Elm	0.44
Barre City	WELLINGTON	S6030	Merchant	Franklin	0.19
Barre City	WEST	S6032	US 302 (North Main St)	Summer	0.09
Barre Town	AIRPORT	S6101	T / L	Jenson	1.26
Barre Town	BECKLEY	S6102	T / L	Nichols / School	0.91
Barre Town	BROOK	S6104	VT 14	Camire Hill Rd	0.54

Barre Town	CAMIRE	S6106	Brook	Upper Camp	0.51
Barre Town	COBBLE HILL	S6108	FAU Limit	Hill Street / Windy Wood Road / Sierra- Lavin Road	1.05
Barre Town	GRANITVILLE	S6109	Main / Middle	Sterling Hill / Websterville	1.11
Barre Town	HILL	S6110	T / L	Cobble Hill / Windy Wood	0.28
Barre Town	NICHOLS	S6111	Beckley Hill / Mekkeson	Dump / Pine Hill	0.53
Barre Town	PINE HILL	S6112	Nicols / Dump	VT 14	0.50
Barre Town	SUNSET	S6113	Upper Camp / Higuera	Windy Wood / Cummings	0.55
Barre Town	WINDY WOOD	S6114	Sierra / Lavin	Sunset	2.26
Barre Town	UPPER CAMP	S6115	T / L	Sunset	1.58
Barre Town	PROSPET	S6117	Airport / Morrison	T / L	0.25
Barre Town	QUARRY HILL	S6119	Sterling Hill	T / L	1.11
Bennington	BEECH	S1000	South Stream Rd	VT 9 (Main Street)	0.87
Bennington	BANK ST	S1002	T / L	Convent Avenue/ Bank St. Ext.	0.20
Bennington	BANK St Extension	S1004	Convent Ave	Hunt St Extension	0.24
Bennington	BENMONT	S1006	VT 9 (Main Street)	Hunt St Extension	0.76
Bennington	BRADFORD	S1008	VT 9 (Main Street)	Coolidge Avenue	0.05
Bennington	BROOKLYN DR	S1009	North Branch Street/ County St.	Park Street/ East Rd./ Kocher Dr.	1.20
Bennington	BURGESS RD	S1010	VT 9 (Main Street)	F.A.U. Limit East (Bennington/W oodford Town Line)	1.53
Bennington	COOLIDGE	S1011	Safford Street	Bradford Street	0.21
Bennington	COUNTY	S1012	Benmont Ave	North Branch Street	1.06
Bennington	CRESCENT	S1014	US 7 (South Street)	Westside / Pine Circle West	0.08
Bennington	DEPOT	S1018	VT 9 (Main Street)	US 7 (Hunt Street)	0.46

Bennington	DEWEY	S1020	Monument	VT 9 (Main Street)	1.10
Bennington	EAST	S1021	TH 28 (Kocher Dr.)	F.A.U. Limit North/ TH 89 (Hewitt Rd)	0.68
Bennington	ELM	S1022	T / L	US 7 (South Main Street)	0.66
Bennington	GAGE	S1024	US 7 (North Street)	VT 9 (Main Street)	1.19
Bennington	GYPSY LN	S1026	VT 9 (Main Street)	Walloomsac Rd	0.26
Bennington	HUNT ST EXT	S1028	Bank St Extension	Benmont Ave	0.27
Bennington	HUNT ST WEST	S1030	Hunt St Extension/ Benmont Ave	VT 7A	0.21
Bennington	MATTESON	S1032	Rice Lane	T / L	0.38
Bennington	MONUMENT	S1034	US 7 (South Street)	T / L	1.91
Bennington	NORTH BRANCH	S1036	VT 9 (Main Street)	County Street	0.32
Bennington	ORCHARD RD	S1037	VT 7A	Willow Rd	0.73
Bennington	PARK ST	S1038	County St	Brooklyn Drive/ Kocher Dr./ East Rd.	0.66
Bennington	PLEASANT	S1040	US 7 (North Street)	VT 9 (Main Street)	0.48
Bennington	RICE	S1042	VT 67A	VT 7A	0.87
Bennington	SAFFORD	S1044	VT 9 (Main Street)	County St	0.39
Bennington	SCHOOL	S1046	VT 9 (Main Street)	County St	0.44
Bennington	SILVER ST	S1048	Prospect Street/ West Side Dr.	Union Street	0.34
Bennington	KOCHER	S1050	US 7	Park Street/ East Rd./ North Branch St.	0.36
Bennington	UNION	S1052	US 7 (South Street)	VT 9 (Main Street)	0.55
Bennington	VALENTINE	S1054	Union Street	Pleasant Street	0.15
Bennington	WALLOOMSAC	S1056	Gypsy Lane/ Walloomsac (non-F.A.U.)	T / L	0.54
Bennington	WASHINGTON	S1058	Weeks Street	VT 9 (Main Street)	0.35

Bennington	WEEKS	S1060	Dewey Street	US 7 (South Street)	0.34
Bennington	WEST SIDE DR	S1062	Crescent Blvd./ Pine Circle West	Prospect Street/ Silver St.	0.08
Bennington	WILLOW	S1063	VT 7A	Orchard Rd	0.23
Bennington	BANK	S1402	Monument Ave	T / L	0.25
Bennington	ELM	S1404	Monument Ave	T / L	0.14
Bennington	MONUMENT	S1406	T / L	Church	0.42
Bennington	MONUMENT	S1406	VT 9 (Main Street)	Walloomsac	0.34
Bennington	WALLOOMSAC	S1408	T / L	Monument Square	0.18
Berlin	AIRPORT	S6202	Scott Hill / Dodge	T / L	0.53
Berlin	DODGE	S6204	Scott Hill / Airport	Berlin State Hwy	0.86
Berlin	FISHER	S6206	Paine Turnpike	VT 62	0.52
Berlin	SCOTT HILL	S6208	Comstock	Dodge	1.90
Brattleboro	BIRGE	S2002	US 5 (Canal Street)	Estey Street	0.30
Brattleboro	BRIDGE	S2004	VT 142 (Vernon Street) / SR 119 (Bridge Street)	New Hampshire State Line	0.08
Brattleboro	CEDAR	S2006	VT 9 (Western Avenue)	VT 30 (Linden Street)	0.75
Brattleboro	CHAPIN	S2008	Oak Street	VT 30 (Linden Street)	0.11
Brattleboro	COTTON MILL RD	S2010	VT 142 (Vernon Street)	South Main Street	0.42
Brattleboro	ELLIOT	S2012	Estey / Holden	Union St / Frost St	0.04
Brattleboro	ELLIOT	S2012	School	Main	0.24
Brattleboro	ELM	S2014	US 5 (Canal Street)	Elliot Street	0.15
Brattleboro	ESTEY	S2016	Birge Street	Frost Pl / Holden / Elliot Street	0.07
Brattleboro	FAIRGROUND	S2018	US 5 (Canal Street)	South Main Street	0.56
Brattleboro	FAIRVIEW	S2020	US 5 (Canal Street)	Maple Street	0.50
Brattleboro	FLAT	S2022	Elm Street	US 5 (Main Street)	0.20
Brattleboro	GREEN	S2024	Chestnut Hill / VT 9	VT 9 (High Street)	0.40

Brattleboro	GREENLEAF	S2026	Mather Road	VT 9 (Western Avenue)	0.40
Brattleboro	GUILFORD	S2028	Maple Street	VT 9 (Western Avenue)	0.48
Brattleboro	MAPLE	S2030	Guilford Street	US 5 (Canal Street)	1.11
Brattleboro	OAK	S2032	VT 9 (High Street)	Chaplin Street	0.18
Brattleboro	OAK GROVE	S2034	US 5 (Canal Street)	South Main Street	0.38
Brattleboro	PINE	S2038	US 5 (Canal Street)	South Main Street	0.32
Brattleboro	SCHOOL	S2040	Elliot Street	Green Street	0.09
Brattleboro	South MAIN	S2042	Fairground Rd	US 5 (Canal Street)	0.91
Brattleboro	UNION	S2044	Elliot Street	VT 9 (Western Avenue)	0.18
Brattleboro	WHIPPLE	S2046	Green Street	VT 9 (High Street)	0.07
Brattleboro	WILLIAMS	S2048	VT 9 (Western Avenue)	Elliot Street	1.07
Burlington	BARRETT	S5004	Colchester Avenue	Grove Street / Chase Street	0.14
Burlington	BATTERY	S5008	dead end (just south of Maple Street)	Pearl Street / Battery Park Drive / Park Street	0.55
Burlington	VT 127	S5009	Manhattan Drive	T / L	3.43
Burlington	127 Connector	S5011	North Ave	Winooski Valley Park Rd	0.56
Burlington	COLCHESTER	S5014	Prospect Street	US 7 (Riverside Avenue)	1.04
Burlington	EAST	S5016	US 2 (Main Street) / Spear Street	Colchester Avenue	0.77
Burlington	FLYNN	S5017	Pine Street	US 7 (Shelburne Street)	0.28
Burlington	GROVE	S5018	T / L	Barrett Street / Chase Street	0.59
Burlington	MAIN	S5022	Battery Street	US 2 (Main Street) / US 7 (Willard Street)	0.72
Burlington	MANHATTAN	S5024	VT 127 Beltline / Park Street	North Champlain	0.07

				Street	
Burlington	NORTH	S5026	Sherman Street	Plattsburg Avenue	3.11
Burlington	North CHAMPLAIN	S5028	Pearl Street	Manhattan Drive	0.50
Burlington	NORTH	S5032	North Ave	US 7 - Willard	0.82
Burlington	North UNION	S5034	Pearl Street	North Winooski Avenue	0.41
Burlington	PARK	S5036	Battery Street / Battery Park Drive / Pearl Street	Manhattan Drive	0.49
Burlington	PEARL	S5038	Battery / Park Streets	Colchester Avenue / South Prospect Street	0.94
Burlington	PINE	S5040	Flynn Avenue	Main Street	1.42
Burlington	PLATTSBURG	S5042	North Avenue	VT 127	0.85
Burlington	ST PAUL	S5046	S. Winooski Avenue / Howard Street	Main Street	0.60
Burlington	SHERMAN	S5048	North Avenue	Battery / Park Streets	0.07
Burlington	South PROSPECT	S5050	US 2 (Main Street)	Colchester Avenue / Pearl Street	0.30
Burlington	South UNION	S5052	Alt. US 7 (Shelburne Street / Saint Paul Street)	Pearl Street / North Union Street	1.09
Colchester	VT 127	S5600	T / L	US 7	5.94
Colchester	LIME KILN	S5602	T / L	VT 15	0.21
Colchester	CHURCH	S5603	Porters Point Rd	Holy Cross	0.91
Colchester	HOLY CROSS	S5604	Porters Point Rd	Church Rd	1.05
Colchester	PORTER POINT	S5605	Prim	Holy Cross Rd	1.30
Colchester	West LAKESHORE	S5606	Church	Prim	0.84
Colchester	MALLETS BAY	S5608	T / L	Blakely	2.91
Colchester	EAST	S5610	VT 2A	T / L	2.96
Colchester	KELLOGG	S5612	Severance	T / L	0.98
Colchester	MILL POND	S5614	Severance	VT 2A	1.60
Colchester	SEVERANCE	S5616	US 7	Mill Pond Rd	1.05
Colchester	BAY	S5617	East Lakeshore	US 7	1.40
Colchester	East	S5618	Blakely	T-41 / Bay Rd	1.47

	LAKESHORE				
E Montpelier	TOWNE HILL	S6300	T / L	Brazier	0.99
E Montpelier	CENTRE	S6301	County Rd	Brazier	1.63
E Montpelier	GALLISON HILL	S6302	T / L	Towne Hill Rd	0.70
E Montpelier	COUNTY	S6303	T / L	Templeton	3.51
Essex	SAND HILL	S5402	VT 117	VT 15	2.25
Essex	ALLEN MARTIN	S5404	Sand Hill Rd	VT 15	0.93
Essex	North WILLISTON	S5408	T / L	VT 117	0.34
Essex	OLD STAGE	S5409	VT 15	T / L	4.00
Essex	SUSIE WILSON	S5410	T / L	VT 2A	1.26
Essex JCT	SOUTH	S5302	West	VT 2A - Park	0.33
Essex JCT	WEST	S5304	South St	West St Extension	1.02
Essex JCT	WEST St Extension	S5306	West	VT 15	0.10
Essex Villiage	SUSIE WILSON	S5303	VT 15	T / L	0.03
Mendon	PARK LANE	S3602	T / L	US 4	0.47
Mendon	TOWN LINE	S3604	T / L	US 4	0.77
Middlebury	CHARLES	S5902	US 7	Water	0.40
Middlebury	CROSS	S5904	South Pleasant	US 7	0.09
Middlebury	ELM	S5906	Seymour	US 7 - Pleasant	0.15
Middlebury	FOOTE	S5908	School House Road / Foote Street (non-F.A.U.)	Quarry Road / Seminary Street Ext.	1.30
Middlebury	HIGH	S5910	Washington	US 7	0.57
Middlebury	MAPLE	S5912	Willard	Seymour	0.17
Middlebury	MERCHANT	S5914	Main Street	Pleasant	0.10
Middlebury	MERCHANT	S5916	Merchant's Row	South Pleasant	0.03
Middlebury	PAINTER	S5918	Happy Valley Rd	Halpin	0.02
Middlebury	SCHOOL HOUSE	S5920	US 7	Foote	0.50
Middlebury	SEMINARY	S5922	US 7	Washington	0.35
Middlebury	SEMINARY St Extension	S5924	Washington	Quarry	0.99
Middlebury	SEYMOUR	S5926	US 7	Pulp Mill Dr /	0.96

				Town Line	
Middlebury	SEYMOUR Extension	S5928	Pulp Mill Dr / Seymour St	dead end	0.32
Middlebury	SOUTH	S5930	South St	VT 30 (South Main St)	0.77
Middlebury	South PLEASANT	S5932	Cross	US 7	0.22
Middlebury	WASHINGTON	S5934	US 7	Seminary	0.30
Middlebury	WASHINGTON St Extension	S5936	Seminary	Happy Valley	1.06
Middlebury	WATER	S5938	Charles	Cross	0.08
Middlebury	WEYBRIDGE	S5940	College	T / L	0.77
Milton	BEAR TRAP	S5802	US 2	Sanderson	2.35
Milton	JACKSON	S5804	Paul Mears Rd	Lake	1.60
Milton	LAKE	S5806	T / L	US 7	8.19
Milton	WESTFORD	S5808	US 7	T / L	3.67
Milton	MIDDLE	S5810	T / L	US 7	3.05
Milton	RAILROAD	S5812	US 7	Main St	1.42
Milton	SANDERSON	S5814	Bear Trap Road	Jackson Road / Meyers Road	1.35
Montpelier	BAILEY	S6402	BR US 2 (State Street)	Terrace	0.12
Montpelier	BARRE	S6406	BR US 2 (Main Street)	Pioneer Street / Old Country Club Road	1.11
Montpelier	BERLIN	S6408	T / L	US 2 (River Street)	1.14
Montpelier	COLLEGE	S6409	Sibley Avenue	Woodrow Avenue / College Street (non-F.A.U.)	0.64
Montpelier	COURT	S6410	Governor Davis Avenue / Court Street (non-F.A.U.)	Elm Street / School Street	0.16
Montpelier	East STATE	S6411	VT 12 (Main Street)	College Street	0.55
Montpelier	ELM	S6412	BR US 2 (State Street)	Spring Street / VT 12	0.33
Montpelier	EMMONS	S6413	Woodrow Avenue	Main Street	0.06
Montpelier	GALLISON HILL	S6414	US 2	T / L	0.91
Montpelier	GRANITE	S6416	US 2 (River Street)	Barre Street	0.14

Montpelier	MAIN	S6420	VT 12 (Main Street / Spring Street)	T / L	1.64
Montpelier	PIONEER	S6422	Barre Street / Old Country Club Road	US 2 (River Street)	0.10
Montpelier	SCHOOL	S6424	Elm Street / Court Street	VT 12 (Main Street) / School Street (non-F.A.U.)	0.07
Montpelier	SIBLEY	S6425	Barre Street	College Street / Sibley Avenue (non-F.A.U.)	0.07
Montpelier	TAYLOR	S6426	US 2 (Memorial Drive)	US 2 Bus Route (State Street) / Governor Davis Ave	0.12
Montpelier	Governor Davis	S6427	US 2 BR (State Street) / Taylor Street	Court Street	0.08
Montpelier	TERRACE	S6428	Bailey Avenue	T / L	1.56
Montpelier	TOWNE	S6430	Towne Street (non-F.A.U.) / Upper Main Street	T / L	1.06
Montpelier	Governor Aiken	S6432	US 2 Business Rte. (State Street)	Baldwin Street	0.08
Montpelier	WOODROW	S6434	Emmons Street	College Street / Woodrow Avenue (non-F.A.U.)	0.04
Newport City	WESTERN	S9000	US 5	Newport City / Derby Town Line	1.39
Newport City	LAKE	S9002	US 5 / School Street	Newport City / Newport Town Line	2.51
No Bennington	BANK	S1200	VT 67	T / L	0.08
No Bennington	MATTESON	S1202	T / L	Mechanic / Overlea	0.53
No Bennington	MECHANIC	S1204	Prospect Street	Matteson / Overlea	0.70
No Bennington	OVERLEA	S1206	Mechanic Street/ Mattison St.	T / L	0.21

No Bennington	PROSPECT	S1208	VT 67A	Mechanic Street/ Prospect St. (non-F.A.U.)	0.10
Proctor	FLORENCE	S3810	Beaver Pond Rd	Pleasant St	0.46
Proctor	MAIN	S3814	North St	VT 3 (South Street / East Street)	0.47
Proctor	NORTH	S3816	Main Street	Pleasant Street	0.14
Proctor	PLEASANT	S3818	Florence Road	North Street	0.11
Proctor	WEST	S3820	T / L	Beaver Pond Rd	3.57
Proctor	BEAVER POND	S3825	West Street	Florence Road	0.65
Rutland City	ALLEN	S3002	US 7 (South Main Street)	Stratton Road	0.77
Rutland City	CHURCH	S3004	BR 4 (West Street)	Crescent Street	0.56
Rutland City	CRESENT	S3006	Fairview Street	US 7 (North Main Street)	0.91
Rutland City	DORR	S3008	Campbell Road	Clement Road	1.54
Rutland City	EAST	S3010	Jackson Avenue	US 4 (Woodstock Avenue)	0.61
Rutland City	EVELYN	S3012	Freight Street	Strongs Avenue	0.10
Rutland City	FAIRVIEW	S3014	Pierpoint Avenue	Crescent Street	0.15
Rutland City	FIELD	S3016	Grove Street	US 7 (North Main Street)	0.53
Rutland City	FOREST	S3018	Park Street	West Street	1.03
Rutland City	FREIGHT	S3020	Evelyn Street (@ corner)	West Street	0.04
Rutland City	GROVE	S3022	BR 4 (State Street)	T / L	1.47
Rutland City	HARRINGTON	S3024	US 4 (Woodstock Avenue)	Lafayette	0.04
Rutland City	HILLSIDE	S3026	US 4 (Woodstock Avenue)	North St Extension	0.30
Rutland City	JACKSON	S3028	US 7 (South Main Street)	East Street	0.20
Rutland City	KENDALL	S3030	Church Street	US 7 (North Main Street)	0.30
Rutland	KILLINGTON	S3032	US 7 (South Main	Rutland City /	1.37

City			Street)	Rutland Town Line	
Rutland City	LIBRARY	S3034	Grove Street	Church Street	0.14
Rutland City	LINCOLN	S3036	BR US 4 (West Street)	Rutland City / Rutland Town Line	1.57
Rutland City	MADISON	S3038	Strong's Avenue	US 7 (South Main Street)	0.23
Rutland City	MEADOW	S3040	River Street	West Street	0.40
Rutland City	MERCHANTS	S3042	Center Street / Strong's Avenue	BR US 4 (West Street)	0.09
Rutland City	NORTH ST EXT	S3044	US 7 (North Main Street)	Hillside Road	0.72
Rutland City	PARK	S3046	Forest Street	US 7 (South Main Street)	0.60
Rutland City	PIERPOINT	S3048	BR 4 (State Street)	Fairview Avenue	0.25
Rutland City	RIPLEY	S3050	Clement Road	BR US 4 (West Street)	0.20
Rutland City	RIVER	S3052	Dorr Drive	Strong's Avenue	0.86
Rutland City	STRATTON	S3054	T / L	US 4 (Woodstock Avenue)	1.87
Rutland City	STRONG	S3056	US 7 (South Main Street)	Center Street	0.69
Rutland City	TEMPLE	S3058	US 7 (North Main Street)	US 4 (Woodstock Avenue)	0.68
Rutland City	WALES	S3060	Strong's Avenue	BR US 4 (West Street)	0.27
Rutland City	WASHINGTON	S3062	Strong's Avenue	US 7 (South Main Street)	0.33
Rutland City	WEST	S3064	Columbian	Merchants Row	0.76
Rutland Town	CHITTENDEN	S3201	US 7	Prospect Hill	1.01
Rutland Town	COLD RIVER RD	S3202	US 7	Stratton Road	0.94
Rutland Town	GROVE	S3203	Cedar Ave. (TH 12)	T / L	1.00
Rutland Town	DORR	S3204	US 4	Rutland Town / Rutland City Line	0.08

Rutland Town	GROVE	S3206	T / L	Cedar Ave. (TH 12)	1.75
Rutland Town	KILLINGTON	S3208	T / L	Town Line Rd	0.47
Rutland Town	LINCOLN	S3210	T / L	US 7	0.09
Rutland Town	PARK LANE	S3212	Post Rd EXT	T / L	0.48
Rutland Town	POST	S3214	US 7	US 4	2.40
Rutland Town	POST RD EXT	S3216	Post Rd	Park Lane	0.30
Rutland Town	STRATTON	S3218	Cold River Rd	T / L	0.52
Rutland Town	TOWN LINE	S3220	Killington Ave./Notch Road	T / L	1.03
Rutland Town	W PROCTOR	S3222	BR US 4	T / L	0.88
Shaftsbury	HAWKS	S1608	VT 67 - Upper Main	Elm	0.62
Shaftsbury	CHURCH	S1616	VT 67	VT 7A	0.27
Shaftsbury	CLEVELAND	S1618	VT 7A	Church Street	0.47
Shaftsbury	ELM	S1622	Elm St./ Upper Main St.	Matteson Rd./ Lamb Rd.	0.07
Shaftsbury	LAMB	S1624	Upper Main / Elm	VT 67	0.30
Shaftsbury	ELM	S1625	Hawks-White Creek	Upper Main	0.51
Shelburne	BARSTOW	S5702	Spear St	Dorset	1.00
Shelburne	BAY	S5704	Harbor Rd	US 7	1.79
Shelburne	CHEESE FACTORY	S5706	Dorset	T / L	0.55
Shelburne	DORSET	S5708	Cheese Factory Rd	T / L	0.27
Shelburne	DORET St Extension	S5710	Hinesburg Rd	Pond Hill / Dorset St	0.48
Shelburne	FALLS	S5712	Mt Philo Rd	Thompson	0.69
Shelburne	HARBOR	S5714	Bay Road / Harbor Road (non-F.A.U.)	US 7 / Falls Road	1.67
Shelburne	HINESBURG	S5715	Dorset St Ext	T / L	0.91
Shelburne	IRISH HILL	S5716	Thompson	Dorset St	1.56
Shelburne	MARSETT	S5718	US 7	MT Philo Rd	0.35
Shelburne	SPEAR	S5720	Irish Hill Rd	T / L	3.03

Shelburne	SPEAR	S5720	T / L	Thomas Rd	0.39
Shelburne	THOMAS	S5721	Spear	Falls Rd	1.09
Shelburne	WEBSTER	S5722	US 7	Spear	1.45
Shelburne	Approach	S5722A	Webster	US 7	0.24
So Burlington	AIRPORT DR	S5202	Kennedy Drive / US 2 (Williston Road)	White Street / Airport Drive Ext.	0.68
So Burlington	AIRPORT PARKWAY	S5206	White Road	T / L	1.72
So Burlington	ALLEN	S5207	US 7 - Shelburne	Spear Street	0.81
So Burlington	DORSET	S5208	T / L	US 2 - Williston Rd	4.11
So Burlington	CHEESE FACTORY	S5209	T / L	VT 116 (Hinesburg Road)	0.79
So Burlington	KIMBALL	S5211	Old Farm Rd	Shunpike Road	0.77
So Burlington	OLD FARM	S5214	Kennedy Drive	Kimball Ave	0.05
So Burlington	PATCHEN	S5216	VT 116 (Hinesburg Road) / US 2 (Williston Road)	T / L	1.12
So Burlington	SHUNPIKE	S5220	Kimball Ave	T / L	0.23
So Burlington	SPEAR	S5222	T / L	US 2 - Williston Rd	3.95
So Burlington	SWIFT	S5224	US 7 (Shelburne Road)	Dorset Street	1.64
So Burlington	WHITE	S5226	US 2 - Williston Rd	Airport Parkway / White Street (collector)	0.85
St Albans City	ALDIS	S8002	North Elm Street	Federal Street	0.30
St Albans City	ALLEN	S8004	Allen Street / Welden Street	Stebbins Street	0.15
St Albans City	CATHERINE	S8006	Stebbins Street	VT 36 (Lake Street)	0.11
St Albans City	CONGRESS	S8008	US 7 (North Main Street)	St. Albans City / St. Albans Town Line	0.66
St Albans City	FAIRFAX	S8011	US 7 (South Main Street)	St. Albans City / St. Albans	0.03

				Town Line	
St Albans City	FEDERAL	S8012	VT 36 (Lake Street)	VT 38 (Lower Newton Street)	0.61
St Albans City	HIGH	S8014	Congress Street	St. Albans City / St. Albans Town Line	0.73
St Albans City	LINCOLN	S8016	Upper Weldon Street	Congress Street	0.50
St Albans City	Lower WELDEN	S8020	South Elm Street / Lower Weldon Street	US 7 (South Main Street)	0.47
St Albans City	NASON	S8022	St. Albans Town / St. Albans City Line	US 7 (South Main Street)	0.37
St Albans City	North ELM	S8024	VT 36 (Lake Street)	VT 38 (Lower Newton Street)	0.80
St Albans City	PEARL	S8026	St. Albans Town / St. Albans City Line	Pine Street	0.56
St Albans City	PINE	S8027	VT 36 (Lake Street)	Pearl Street	0.23
St Albans City	South ELM	S8028	Lower Weldon Street	VT 36 (Lake Street)	0.17
St Albans City	STEBBIN	S8030	Stebbins Street (non-F.A.U.) / Allen Street	Catherine Street / Stebbins Street (non-F.A.U.)	0.01
St Albans City	Upper NEWTON	S8032	US 7 (North Main) / VT 38 (Lower Newton)	High Street	0.24
St Albans City	Upper WELDON	S8034	US 7 (South Main Street)	St. Albans City / St. Albans Town Line	0.63
St Albans Town	BRIGHAM	S8202	VT 36 (Lake Street)	Pearl Street	0.35
St Albans Town	BRONSON	S8204	Nason Street	VT 36 (Lake Street)	0.65
St Albans Town	CONGRESS	S8206	St. Albans City / St. Albans Town Line	VT 104	0.23
St Albans Town	FAIRFAX	S8207	St. Albans City / St. Albans Town Line	F.A.U. Limit (Southeast) / VT 104	0.91
St Albans Town	HIGH	S8208	St. Albans City / St. Albans Town Line	VT 105	0.22

St Albans Town	NASON	S8210	Bronson Road	St. Albans Town / St. Albans City Line	0.88
St Albans Town	PEARL	S8212	Brigham Road	St. Albans City / St. Albans Town Line	0.43
St Albans Town	Upper WELDON	S8216	St. Albans City / St. Albans Town Line	F.A.U. Limit (Southeast) / VT 104	0.13
St Johnsbury	BAY	S7002	Lower Portland Street	dead end	0.56
St Johnsbury	BAY St Extension	S7004	Depot Square / Eastern Avenue	Bay Street	0.08
St Johnsbury	BREEZY HILL	S7005	Pleasant Street / Rocky Ridge Road	US 5	1.97
St Johnsbury	CENTRAL	S7006	US 2 (Western Avenue) / Mt. Vernon Street	Alt. US 5 (Main Street)	0.42
St Johnsbury	CHURCH	S7010	Summer Street	Alt. US 5 (Main Street)	0.10
St Johnsbury	CONCORD	S7012	US 5 (Railroad Street)	Higgins Hill Road / Ball Road	1.38
St Johnsbury	CROSS	S7014	Pearl Street	US 5 (Railroad Street)	0.06
St Johnsbury	DEPOT SQ	S7016	US 5 (Railroad Street)	Eastern Avenue / Bay Street Ext.	0.06
St Johnsbury	CONCORD	S7018	Concord Avenue / Higgins Hill Road (non-F.A.U.)	Waterford / St. Johnsbury Town Line	0.40
St Johnsbury	LOWER PORTLAND	S7020	Bay Street / Lower Portland Street (non-F.A.U.)	River Street / Weeks Court	0.09
St Johnsbury	MAPLE	S7022	Alt. US 5 (Main Street)	US 5 (Railroad Street)	0.21
St Johnsbury	North DANVILLE	S7023	Danville / St. Johnsbury Town Line	US 2	1.40
St Johnsbury	PEARL	S7024	Eastern	Maple	0.16
St	PLEASANT	S7026	Concord Avenue	Breezy Hill	0.73

Johnsbury				Road / Rocky Ridge Road	
St Johnsbury	SEVERANCE HILL	S7027	US 2	St. Johnsbury / Lyndon Town Line	3.53
St Johnsbury	ST JOHN	S7028	US 5 (Passumpsic Street)	Pleasant Street	0.36
St Johnsbury	SUMMER	S7030	Central Street / Summer Street (non-F.A.U.)	Alt. US 5 (Hastings Street)	0.42
St Johnsbury	WEEKS COURT	S7032	River Street / Lower Portland Street	US 2 (Portland Street)	0.08
St Johnsbury	WINTER	S7034	Summer Street	Alt. US 5 (Main Street)	0.11
West Rutland	MARBLE	S3402	VT 4A / Franklin	Swamp Road / Water St	1.22
West Rutland	PLEASANT	S3403	Whipple Hollow Road	Pleasant Street/ Marble St.	0.41
West Rutland	PLEASANT	S3404	BUS 4	Marble Street/ Pleasant St.	3.05
West Rutland	WHIPPLE HOLLOW	S3408	Swamp Road	T / L	3.88
West Rutland	SWAMP	S3409	Whipple Hollow Road	Marble St	0.30
Williston	INDUSTRIAL	S5504	US 2	VT 2A	1.05
Williston	MARSHALL	S5505	Shunpike	VT 2A	1.57
Williston	MOUNTAIN VIEW	S5506	VT 2A	Redmond	1.15
Williston	North WILLISTON	S5508	US 2	T / L	2.85
Williston	OAK HILL	S5510	T / L	US 2	4.85
Williston	REDMOND	S5512	Mountain View Rd	Proposed I-289 Ramp	0.18
Williston	SHUNPIKE	S5514	T / L	South Brownell	0.03
Winooski	DION	S5102	VT 15 (East Allen Street)	LaFountain Street	0.15
Winooski	SPRING	S5104	US 7 / US 2 (Main Street)	VT 15 (East Allen Street)	0.41
Winooski	LAFOUNTAIN	S5106	US 7 / US 2 (Main Street)	Dion Street	0.51
Winooski	West ALLEN	S5107	Mallet's Bay Ave	East Allen Street / US 7	0.13
Winooski	MALLETS BAY	S5108	West Allen Street	T / L	0.70

Winooski	West SPRING	S5110	Mallet's Bay Ave	US 7 / US 2 (Main Street)	0.33
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APPENDIX A FEDERAL AID MAPS